ISCTE Business School
Instituto Universitário de Lisboa

Entry Mode Selection for Internationalization of Giant Chinese State Owned Companies: the Case of Entrance in Africa of China Communications Construction Company

YANG Yongsheng

Thesis submitted as partial requirement for the conferral of

Doctor of Management
Specialization in Organization and Human Resource

Supervisors
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Prof. JING Runtian
(School of Management and Economics, University of Electronic Science and Technology of China)

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Abstract

Enterprise internationalization is an inevitable choice as open economies develop to a certain level. According to the direct investment development path theory of John Dunning, when the GNP Per Capita exceeds $ 3000, the net foreign investment will be positive. With rapid development over the past three decades, China's international economic position and influence have significantly improved and its GNP Per Capita has surpassed $ 4000, it has entered the rapid growth stage for investment development as described in Dunning's theory. At this stage, the market entry mode selection is the first issue to tackle for enterprise internationalization.

This thesis takes China's giant state owned construction companies as research object and the author analyzes the internal and external environments and the strategic selection for internationalization operation, and describes the conceptions, categories, internal attributes and factors of market entry mode selection for internationalization of construction companies. This thesis focuses on China Communications Construction Company Ltd (hereinafter referred to as CCCC), representative of giant Chinese state owned construction companies, sets up the SWOT analysis and weight system and conducts strategic positioning. Based on the above strategic positioning, the author takes into consideration the national background of these companies and puts forward three assumptions and their theoretical framework. The thesis takes CCCC's entry into the market of Kenya and Angola as an example, verifies the effectiveness and application of the theoretical framework, and makes up the deficiency of the theory on market entry mode selection for enterprise internationalization, providing reference for enterprises' market entry practice.

Key Words: Enterprise Internationalization; Market Entry Mode; Construction Company; Government Relations, China, Africa.

JEl: M1, Management

Resumo

Quando as economias abertas atingem um determinado nível de desenvolvimento a internacionalização das empresas torna-se uma escolha inevitável. De acordo com a teoria de investiemnto directo de John Dunning, quando o rendimento per capita excede $3000, o investimento estrangeiro liquido será positivo. Com um crescimento económico rápido nas últimas três décadas, a posição económica internacional da China e influência melhoraram significativamente e o seu rendimento per capita ultrapassou os $4000. Atingiu, deste modo, o estágio defendido por Dunning.

Esta tese tem como objecto de pesquisa as empresas "gigantes" estatais Chinesas do ramo das obras públicas e o autor analisa a envolvente interna e externa e a escolha estratégica dos modos de internacionalização das mesmas. Esta tese foca-se na empresa chinesa – China Communications Construction Company Ltd (CCCC), representante das empresas gigantes estatais chinesas de obras públicas, descrevendo o processo de realização da análise SWOT. Tendo por base o posicionamento estratégico da empresa, o autor analisa o contexto em que esta empresa se desenvolveu e avança com três pressupostos no que concerne à sua internacionalização. A tese compara também os processos de entrada da CCCC em Angola e no Quénia.

Palavras Chave: Internacionalização, Modos de Entrada, Empresas de Obras Públicas, Relações com o Governo, China, África.
JEL: M1, Management.

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Chapter 1: Introduction

Market entry mode selection has become an important factor influencing the success of international operation of multinational companies. This thesis studies the characteristics of market entry mode selection for internationalization of giant state owned construction companies. This chapter includes the research background, content and significance, methodology and structure of the work.

1.1 Research Background

The past three decades has witnessed the world multi-polarization, deepening of economic globalization and the rapid development of China's reform and opening up and economic growth. China has stepped up its economic and political connection with the rest of the world, and has rapidly become an integral part of world economy. China has maintained its annual GDP growth rate over 8%, people's living standards keep improving and it also does well in product export and attraction of foreign investment. Therefore, "China Growth" has once become a hot topic for research of scholars.

Economic globalization is mainly embodied by enterprise internationalization and multinational companies become the main player of enterprise internationalization. They conduct foreign investment and multinational operation, and allocate resources in the world, for example, research and development in the US, made in China and exported to Europe. The scale and influence of multinational companies have grown unprecedented, resulting in the change of world growth mode and economic structure. Many countries take this opportunity and use their own comparative advantages to realize rapid rise in the process of deepening economic globalization. In 1970s, four Asian tigers realized their rapid economic growth and became developed economies and gave birth to a number of multinational companies like Samsung and Hyundai. In 1980s, as the new economic growth engine, China economic expansion developed fast and it also needs to adjust the industrial structure and upgrade the industry, which is rooted in the birth and development of enterprises with highly international operation and inevitable result when open economies develop to a certain level.

Enterprise internationalization generally includes the inward internationalization and outward internationalization, namely, the so-called "bringing in" and "going global". For inward internationalization, China mainly adopts the method of product export and attraction of foreign investment to participate in world economy through the signing of a series of

intergovernmental agreements to remove trade barriers and provide policy guarantee for cross-border trade. By 2011, the Chinese government had signed agreement on protection of bilateral investment with 130 countries and regions, and agreement on avoidance of double taxation with 96 countries, signed 10 agreements on free trade zone and established joint commission on economy and trade and the mechanism for the cooperation and promotion of investment. Meanwhile, China makes great efforts to develop its outward economy through creating favorable domestic investment environment, taking the advantage of the huge market and rich human resources and attracting foreign investment. Over the past ten years after its accession into WTO, China's GDP grew twice, its volumes of export and import increased 5 times. In 2010, its attraction of foreign investment exceeded $100 billion, ranking No. 1 for 19 consecutive years among the developing countries.

Judging from the experience of developed countries, outward internationalization is an inevitable stage for open economies and a process of integrating the national economy into the world economy. According to John Dunning's direct investment development path theory, when the GNP per capita exceeds $ 3000, the net foreign investment will be positive. Currently, Japan, Germany, Korea and Taiwan are at the stage of outward investment exceeding attraction of foreign investment, while the US and UK have entered the stage of balanced mutual international investment.

Since the reform and opening up, China has successfully transformed from the planning economy to market economy and established the main position of enterprises in market economy. In 1990s, it conducted reform of state owned enterprises, reorganizing the giant ones affecting the national economic development through merger and combination, giving birth to a number of giant central enterprise groups under the State-owned Assets Supervision and Administration Commission (hereinafter referred to as SASAC). These groups have conducted reforms on management system and organizational structure and improved their competiveness through getting listed, strengthening internal management and external supervision and raising more capital and other measures, thus laying a solid foundation for their outward internationalization.

Over the past 30 years, China has significantly improved its international position and influence, and its GNP per capita has exceeded $ 3000 and China has entered the stage of rapid outward investment in accordance with the investment development path theory. The state owned enterprises have become the main entities to play the dual role of national and corporate strategy with the special national background.

By the end of 2011, Chinese state owned enterprises have developed fast in outward investment and made their trials. For example, Sinopec invested $7.139 billion to acquire 40% of the equity of Repsol YPF SA's Brazilian unit; the State Grid Corporation of China invested $989 million to purchase seven Brazilian power transmission companies. Although China National Offshore Oil Corporation (CNOOC) failed to acquire Unocal, the process of acquisition was well organized and its equity and market value increased a lot, and its international image, reputation and recognition improved significantly.

Although China's outward investment cooperation develops fast, it is still at an early stage. Compared to foreign trade and attraction of foreign investment, enterprise internationalization still needs improving and the international market share is low. By the end of 2010, the inventory of China's outward investment was only 1.6% of the global total. This entails the state owned enterprises to further improve their international competitiveness and speed up to "go global".

Besides, the change of overall environment for enterprise internationalization has made outward internationalization the only alternative for China to transform its economic growth pattern and avoid "middle income trap".

Judging from the outward environment, since the financial crisis in 2008, the world economy has maintained sluggish and European and America economies have been beaten heavily with low consumption demand and high unemployment, and the basis for economic recovery is weak. The European debt crisis is pending, trade protectionism is on the rise and government interference in the economy has grown. In order to expand export and boost the recovery of economic growth, many countries set constraints on import of products, trade liberalization has begun to recede and China's export has been affected seriously.

Judging from the internal environment, with rapid development over the past 30 years, the basis and development conditions for China's reform and opening up have changed significantly. The traditional labor-intensive, resource consuming and export oriented industries have decreased their competitiveness and the production capacity is surplus. The cost of various elements and the pressure of enterprise operation have increased and the profit margin has decreased, which become the major obstacles for China's foreign trade and attraction of foreign investment. Meanwhile, domestic enterprises have developed their capabilities, laying a micro foundation for enterprise internationalization.

To sum up, the enterprise outward internationalization is the inevitable choice for

China's sustained economic development. However, there are still many problems to resolve during this process, for example, the geographic location of enterprise internationalization, selection of industries and market entry mode, whose solution is the key to the success of enterprise internationalization. Among them overseas market entry mode has been the focus of the theory and practice of multinational operation in recent years. Market entry mode selection not only affects the success of enterprises in entering overseas market and expanding business but also concerns their competitive position in global market and their pace of internationalization development. In this sense, the study on market entry mode selection has important theoretical and realistic significance.

1.2 Research Content and Significance

This thesis takes China's giant state owned construction companies as research object and their market entry mode selection for internationalization operation is analyzed. As a special industry, construction companies' market entry mode selection is different from enterprises of other industries. In fact, literatures on market entry mode selection are mainly in manufacturing and service industries.

The giant Chinese construction companies have entered overseas market early, especially the Africa and Asia markets with rapid development. Among the 225 largest contractors in the world, the number of Chinese companies had grown from 3 in 1989 to 54 in 2010, completing the overseas turnover of 13.2% of the 225 contractors, ranking No. 1 in the world.

However, they have not involved much in international popular contracting modes like EPC (engineering procurement contracting), BOT (build, operate and transfer), PMC (project management contract), franchising and project financing and are still at the middle and downstream of the industry chain. How to transform from the simple engineering contracting to comprehensive engineering contracting integrating technology, capital, management, standard and service export is a big issue facing the giant Chinese state owned construction companies. With policy support, the giant Chinese state owned construction enterprises have comparative advantages of financing and risk avoidance compared to other multinational companies. However, their state owned background also triggers unique political risk in that western countries are doubtful of their strategic motives for outward investment and China's rise outside the socialist system together with other worries and bias. They sometimes politicize economic and trade issues. This is an issue unavoidable for Chinese construction companies entering overseas market. In this connection, in terms of market entry selection for

internationalization operation, the giant Chinese state owned companies have their own characteristics, which cannot be explained with international trade and market entry mode theory based on the traditional assumption of perfect market competition.

Based on the above analysis, the author proposes the theoretical hypothesis for the market entry mode selection for internationalization operation of giant Chinese state owned construction companies and builds the analysis framework for the market entry mode selection, making up the deficiency in the study.

The content of this thesis is to conduct induction and analysis on the factors influencing the market entry mode selection for internationalization strategy of giant Chinese state owned companies and quantitative analysis with data on questionnaires, based on which the hypothesis on market entry mode selection is proposed and the analysis framework is established with case study as supporting evidence. The purpose of this thesis is to make up reference in both theory and practice for market entry mode selection. The main content of the thesis has four parts:

(1) The thesis first summarizes and analyzes relevant theories and factors on enterprise internationalization and its market entry mode selection, and introduces the research philosophy and strategy, methods of data collection as well as methods of qualitative and quantitative analysis.

(2) The internal and external environments of Chinese construction companies' internationalization operation are analyzed with qualitative analysis tools of PEST and SWOT. CCCC is taken as an example. Through questionnaire and interviews with experts to obtain sample data and suggestions, the hierarchy analysis method is adopted to make the strategic positioning of CCCC's internationalization operation, serving as the basis for later analysis of market entry mode selection.

(3)Through literature review and exploratory research, the author proposes three hypotheses for market entry mode selection of giant Chinese state owned construction companies, based on which the theoretical framework is established.

(4)Starting from the theoretical analysis framework established in this thesis, the author conducts case study of CCCC's entry into the markets of Kenya and Angola to verify the effectiveness of the theory model of this thesis. The cases are typical of the formality and content of Chinese construction companies' entry mode of overseas market, analysis of which would provide reference and guidance for the implementation of similar projects and entry of

other companies.

1.3 Design of Research Methodology

This work adopts the research method combining qualitative and quantitative analysis. There is positivism paradigm and interpretivism paradigm in the research of management for a long time. Positivism paradigm holds the view that social problems can be measured objectively with research methods used in national sciences. Interpretivism paradigm regards that the measurement results cannot be independent from our own management and value judgment. Different methods have derived from the two paradigms, like questionnaire, interview, site observation and case study. In our research, several methods are adopted as one single research method is scarcely used in realistic study. In terms of research method, the thesis integrates positivism and interpretivism analysis, sample investigation and interview with experts. And the author conducts research on factors and specialty of market entry mode selection for internationalization operation for giant Chinese state owned construction companies, based on which exploratory research is done and theoretical hypotheses are proposed to set up new theoretical framework and make judgments. Through above arrangement, this work not only answers the question of what, and the question of why through analysis of questionnaire, and the question of how through case study, interview and questionnaire. With integration of questionnaire and case study, the hypothesis and analysis framework is verified and enriched to realize the purpose of this thesis.

1.4 Structure of the Thesis

This study has five chapters. Chapter 1, introduction mainly describes the research background, content, significance and methodology. Chapter 2, literature review has a summary and review of relevant theories on enterprise internationalization. In chapter 3, the research philosophy and tactics are introduced; the integrated qualitative and quantitative analysis is adopted, and relevant qualitative and quantitative analysis tools are employed. In chapter 4, the industry environment of internationalization operation of Chinese construction companies and the strategic positioning of CCCC are analyzed. First, the internal and external environment of internationalization operation of Chinese construction companies and their strategic selection are analyzed; second, the data collected from questionnaires is used to construct SWOT analysis framework and weight system, based on which the strategic

positioning of CCCC's internationalization operation is conducted. Chapter 5 is case study. Based on the above strategic positioning, considering the national background of giant state owned construction enterprises, the three hypotheses and theoretical framework on market entry mode selection are established, which makes up the deficiency of market entry mode selection of enterprise internationalization and provides reference for other companies. Chapter 6 is conclusions and prospects. Based on the theoretical analysis and case study, the author summarizes the characteristics of market entry mode selection for internationalization for giant Chinese state owned construction companies and innovations and limitations of the work.

Chapter 2: Literature Review

In this chapter, relevant theories on enterprise internationalization and market entry mode selection are reviewed, laying a foundation for exploratory research in the latter part.

2.1 Internationalization and Related Concepts

2.1.1 Definition of Enterprise Internationalization

Enterprise internationalization is a notion that has abundant implications. The unified definition for enterprise internationalization is not available for a long time. Generally speaking, it is a process of an enterprise's deep-going involvement in the global economic integration, during which the enterprise engages in the optimum allocation of resources at the global level and multinational operation to launch its products from the domestic market to the international market. In the development process of enterprise internationalization theory, a large number of literatures and representative views on enterprise internationalization have emerged, which mainly include the following aspects:

(1) It is believed that internationalization is an evolution process that an enterprise continuously penetrates the international market from the domestic market (Melin, 1992). Based on the stage theory of enterprise internationalization, Johansen (1975) and other scholars put forward that internationalization is a continuous process of an enterprise's increasing involvement in the international market. With the continuous increase of its investment in the international market, the enterprise increasingly expands its involvement in the international operation in terms of depth and breadth.

(2) It is considered that internationalization is an investment mode for foreign market (Williamson, 1975) through analysis of internalization, ownership and location advantages from the perspective of economics.

(3) It is thought that enterprise internationalization includes the inward internationalization and outward internationalization (Welch & Luostarinen, 1988 & 1993). The inward internationalization involves the attraction of foreign investment, introduction of technologies and import of commodities and so on, while outward internationalization relates to the export by the agent, direct export, joint venture and merger and so forth. The inward internationalization is the premise and condition of outward internationalization. The

internationalization as mentioned in this thesis mainly refers to the outward internationalization of enterprises.

(4) It is believed that enterprise internationalization covers all foreign operation activities of transnational enterprises. Stephen Young (1989) proposed that the enterprise internationalization should be “all modes of the transnational operation of an enterprise”, for example, selection of a foreign market and entry mode.

From the above views, it can be seen that, despite many different definitions of enterprise internationalization, their essential meanings are the same. Enterprise internationalization covers economic and behavior factors, which is a continuous, dynamic and systematic evolution process and is realized in stages, namely, the inward internationalization is carried out first, followed by the outward internationalization, and the former is the premise and condition of the latter.

2.1.2 Measurement of Enterprise Internationalization Level

While studying the theory of enterprise internationalization, we must face one important problem of how to measure and compare the internationalization level between different enterprises, for at different stages of internationalization level, the internationalization strategies and measures an enterprise takes are different. And that is why it is a problem remaining to be resolved.

Based on the definition of internationalization of the aforesaid enterprises, some basic measures can be put forward, such as the proportion of exported output to aggregate output, the proportion of foreign investment to total investment, the proportion of the number of foreign employees to total employees, the proportion of overseas net profits to total profits. They can be applied to measure the internationalization level of an enterprise. However, the definition of internationalization contains rich intension, there are various methods and measures, and the difference between inward and outward internationalization. Therefore, it is very important to develop a scientific and mature index system to measure the internationalization level of enterprises.

Although in the international academic circles, no uniform standard has been achieved on the establishment of an index system so far, some institutions and scholars have put forward some representative methods and index systems, they are:

(1)The Transnationality Index or TNI

The index is put forward by UNCTAD, and is known for it easy operation. The formula is:

$$TNI = (FSTS + FETE + FATA) / 3$$

In which, FSTS (Foreign Share in Total Sales) $= \frac{\text{Foreign Sales}}{\text{Total Sales}}$

FETE (Foreign Employment in Total Employment) $= \frac{\text{Foreign Employment}}{\text{Total Employment}}$

FATA (Foreign Assets in Total Assets) $= \frac{\text{Foreign Assets}}{\text{Total Assets}}$

Despite the advantages of simple data collection, easy operation, equal weight of the three single indexes, and full consideration of the three different dimensions of enterprise internationalization, TNI still has disadvantages. One is the diversification on the motivation of enterprise internationalization. K.Kojima (1987) divided the motivation of enterprise internationalization into three categories: natural resource oriented type, market oriented type, and production factor oriented type. Dunning (1998) thinks that there are four kinds of motivation of enterprise internationalization, namely, resource based type, market based type, efficiency based type and strategy based type. Enterprises with different motivations represent different internationalization levels, but TNI fails to consider the diversification of motivation. Another disadvantage is the difference between inward and outward internationalization, or the strategies of “bringing in” and “going global”. The two parts arise at different stages of internationalization, but TNI only focuses on outward internationalization and neglects inward internationalization. Therefore, it is not enough to measure the internationalization level in an all-round way.

(2) Degree of Internationalization Scale, or DIS

Developed by Daniel Sullivan (1994), DIS integrates five single indexes into one index. The formula is:

$$DIS = FSTS + FATA + OSTS + TMIE + PDIO$$

FSTS (Foreign Sales to Total Sales) $= \frac{\text{Foreign Sales}}{\text{Total Sales}}$

FATA (Foreign Assets to Total Assets) $= \frac{\text{Foreign Assets}}{\text{Total Assets}}$

OSTS (Number of Overseas Subsidiaries to Total Number of Subsidiaries) $= \frac{\text{Number of Overseas Subsidiaries}}{\text{Total Number of Subsidiaries}}$

$$\text{TIME} = \frac{\text{Working Time of International Senior Management Employment}}{\text{Working Time of all Senior Management Employment}}$$

PDIO = Psychological Diffusion of International Operation

Despite the advantages of simple data collection, easy operation, equal weight of the five single indexes, and full consideration of the different dimensions of enterprise internationalization, DIS still has disadvantages.

a. Although the five indexes share equal weight, for each enterprise, its professional field and business scope are different from other enterprises, so the concrete form of internationalization is also different.

b. Motivation of enterprise internationalization varies from each other.

c. Judging by statistics, the five indexes contained in DIS have multi-collinearity and amplification effect.

(3) The Transnationality Spread Index, or TSI

TSI was developed by Letto-Gillies (1998), the formula is:

TSI = The Number of Entered Country/The Number of Country with Direct Investment-1

(4) Research and Development Ratio, or R&D

R&D = Overseas R&D Cost/Total R&D Cost

2.2 Theoretical Analysis on Enterprise Internationalization Strategy

2.2.1 Analysis on Factors Influencing Enterprise Internationalization Mode

Enterprise internationalization is a dynamic evolution process. It is necessary understand clearly some basic factors that restrain enterprise internationalization in order to realize the internationalized operation. As the Chinese government implements the strategy of “going global”, Chinese enterprises have gradually deepened their involvement in the international division of labor. However, during this process, there exists great blindness and randomness for enterprise internationalization in terms of the selection of industries and location, and they have no sufficient understanding of the objective environment of the host countries, resulting in some losses that should have been avoided. For example, China Railway Construction Corporation (CRCC), one of China’s three tycoons on infrastructure projects, has released

announcement that, its light rail project in Saudi Arabia may suffer a loss, as a result of changes in construction period by the employer and increase of costs, chaotic procurement of engineering equipment, poor reputation of the local people and large difficulty in demolition. CRCC undertook the foreign projects by virtue of its domestic construction experience, and failed to make a deep-going research and investigation on the foreign investment environment. It is worthy of profound reflection. Therefore, in this section, an analysis on the objective environment influencing the enterprise internationalization will be conducted in order to reduce the risks confronting enterprise internationalization.

(1) Geographic Location

The geographic location is a geo-relation between the target country and other countries, representing the resources of the surrounding countries available for the domestic enterprises in internationalized development, and the mutual influence and convergence with other countries in the political, economic and cultural areas. Enterprise internationalization is to generally penetrate into and extend to the surrounding areas from the domestic market. The enterprises may enter the foreign market by direct investment, that is, they establish factories and engage in the sales in the local in order to make full use of the environmental convergence and comparative advantages of the host country.

(2) Surface Environment

The surface environment mainly covers the terrain and landform of the host countries as well as the distribution of mountains and rivers. The natural surface shape of these regions divides a country into different markets. These markets, featuring different geographic and cultural backgrounds, have different advantageous industry and investment environments. Generally speaking, in coastal areas with superior traffic, the representative port, freight and overseas trade industry are developed, while in the flat areas with crisscrossed by highways and railways, it is suitable to establish factories.

(3) Climate Conditions

In places with favorable climate, there would be few natural disasters and a high population density, so some large cities and communities are developed there. With a large market scale and potential, these places may be entered through direct investment featuring high risk and high control degree; while in some places with severe climate and small and disperse population, the market entry mode featuring small risk and low control degree such as export by agent or direct export is adopted for enterprise internationalization generally. Andrew Kamark ever described the significant influence of the climate on the national

economic development in his The Tropics and Economic Development.

(4) Natural Resources

The natural resources of a country determines, in some extent, the factor endowment and comparative advantages of the country, and seeking resources is one of the strategic drivers of many enterprises' internationalization. For example, in the recent two decades, the Southeast Asia has gradually become the main investment destination of America and European countries. They use the local abundant but cheap raw materials and labor forces by establishing joint venture or wholly owned factories in order to reduce their production costs.

(5) Social and Cultural Environment

The social and cultural environment mainly involves social customs, religious beliefs, values, language, culture, social structure and other aspects of the host countries. In terms of the outward internationalization of an enterprise, it will take different internationalization strategies based on the different social and cultural environments of the host countries. First, if the host country has a more developed education system, there will be a higher stock of human capital in the whole society, which contributes to the improvement of local production efficiency of the transnational enterprises. In this case, direct market entry will be preferred by these enterprises; second, different religious beliefs will guide the enterprises to choose different international industries, for example, the Christianity advocates hard work, frugality and savings, the Buddhism preaches spiritual value and continence, while the Islamism bans Islamist from eating pork and abusing alcohol. All of these will influence the value and consumption of the local customers; third, if countries have similar language and cultural backgrounds, the barrier to entry will become smaller, and the "emotional distance" between these enterprises and the host country will be closer, so it would be more likely for them to adopt the direct entry mode.

(6) Economic Development Environment

Enterprise internationalization is, by its very nature, indirect or direct economic relation between enterprise and other countries, referring to developing and using host countries' economic factors, including the following three kinds:

a. Production factors, such as supply of labor, raw materials and land

b. Demand factors, including GNP, per capital income and income distribution

c. Developmental factors, like industrial structure, economic stability, opening up level and so on.

These factors can be described into the five following aspects:

a. The Level of Economic Development

The level of economic development represents the development of a country and the level of its people's social welfare and determines its market capacity and consumption potentiality. Internationalization drivers of many enterprises are market-oriented type that aims to expand their market share. There are different market opportunities and risks at different economic development stages; therefore, it is necessary for enterprises to make different international marketing strategies.

b. Level of Economic Stability

Economic stability is to describe economic sustainable development of a country, including the stability of financial environment and coherence and continuity of government economic policies. This stability will affect comparison between expected returns and risks of enterprise internationalization and influence the selection of enterprise internationalization strategies.

c. Status of Income Distribution

d. Infrastructures

Infrastructures include industrial infrastructures and urban public service facilities, which reflect the country's basic investment environment. The better the infrastructures are, the more easily enterprises directly invest in that country to benefit from the convenience, high-efficiency and low costs.

e. Foreign Economic Policies

Foreign economic policies show host government's regulations and limitations on foreign investment, as well as level of economic opening up. In case that a country formulates tax for foreign investment enterprises and other preferential policies, it will attract a lot of foreign investment and reduce the uncertainty for enterprises to enter that country, which equals to giving a recessive subsidy to foreign investment.

(7) Political Environment

The political environment is related to the safety of enterprise international investment. As enterprises' direct investments are generally characteristic of long cycle, large investment and slow return, enterprises pay special attention to the safety and indemnity of investment. It is necessary to analyze political environment to reduce the risks of enterprise internationalization and formulate appropriate strategies for internationalization.

Political environment of a country constitutes three aspects:

a. Political Stability

Political stability mainly means stability and continuity of government policies. The policies made by government will stay for a long period and will not be altered due to the change of government and other emergencies. The better the continuity of policies, the better the political stability of that country and the more certainty of enterprises' expected returns. If policies are protracted, enterprises prefer to choose highly controlled market to enter.

b. Foreign Image of a Government

The foreign image of a government signals to the foreign investors. A good foreign image will positively encourage investors. Otherwise, it will lower the desire of investors.

c. Political System

The political system means electoral system, administrative management system and government organization structure. There are two types of system: centralization and democracy. Under centralized system, the government over-intervenes the macro-economic performance and micro-bodies' activities and the government rights are above personal rights, thus enterprises have to invest a lot of resources and materials to build and maintain relations with the government. As a result, enterprise internationalization tends to enter the market by low-risk and low-controlled ways such as trade; under democratic system, the enterprises' rights are well protected and their losses are little because of political system. Such system relies on market mechanism to adjust economic development, in which there is little restrain on enterprises' development. Therefore, enterprises are willing to enter such market.

(8) Legal Environment

Law is a basic principle to adjust social activities. There are many laws and regulations in each country, which are compatible with the country's political, social and cultural environment. Especially some laws are directly for foreign enterprises and investment. The enterprise internationalization focuses on strictness and equality of implementation process of laws. The more fair the law-enforcement, the more attractive to enterprises. However, the more mature the market, the harder for enterprises to enter. Though laws are not perfect in developing countries and enforcement is not strict, there are many market opportunities and low enter costs.

2.2.2 Analysis on Market Entry Mode of Enterprise Internationalization

The aforementioned influence factors analysis on enterprise internationalization mainly focus on the considerable factors for enterprise internationalization and comprehensive evaluation on objective environment facing the enterprise. Another problem for enterprise internationalization to resolve is that which mode the enterprise should choose to enter the market in such circumstance. Enterprises' market entry mode is the way that the enterprise takes advantage of its resources to enter the objective market. There are different characteristics in different market entry modes. The following are specific analysis:

(1) Trading Entry

The trading entry mode means that the products are produced in native country and are sold in target countries. It can be divided into direct and indirect types. Indirect export is that enterprises sell their products overseas through international import and export trading company and enterprises do not join in specific product selling and expansion of foreign market. According to the stage theory of enterprise internationalization, when enterprises are small and weak, it is of less risk and investment for enterprises that are at the early stage of internationalization to enter into markets. Direct export is enterprises participate in establishing overseas marketing channels directly. Such marketing channels mainly include the following:

a. Assign Overseas Exclusive Distributor

The overseas exclusive distributor means that an enterprise in target country signs product purchasing and selling contract with native enterprise. During the effective period of contract, the overseas distributor purchases products from the domestic enterprise and as the exclusive designated distributor in that area to sell the products.

b. Assign Overseas Exclusive Agent

The overseas exclusive agent means that an agent, as a broker, signs purchase agreement with overseas clients as the authorized representative of a domestic enterprise in accordance with the contract that is signed between an agent and a domestic enterprise. The agent will be paid commissions according to sales amounts. Compared to the overseas exclusive distributor, it refers to a third party, thus there are more risks in breach of contract.

c. Open up Sales Office

Opening up sales offices means to set up direct organizations in some countries or regions to directly manage products sales in this area. The domestic enterprises can have a

better understanding of market environment and demand of the target countries in this way.

d. Establish Overseas Sales Subsidiary

Establishing overseas sales subsidiary means setting up independent overseas corporate institutions directly under parent company. The institutions have equal corporate treatment as overseas trading company. They are able to directly sell products produced by domestic companies in overseas market, which is an effective way for enterprises to expand sales channels overseas.

e. Set up Joint Export Organization

Setting up joint export organization means that many domestic enterprises of the same industry join together to form an export organization, which has uniform regulations and rules. The overseas market will be expanded in the name of the organization and each enterprise is independent.

Trading entry mode is a conservative, safe, high-efficiency and low-cost way for enterprises to enter overseas market. It is especially suitable for the early stage of enterprise internationalization when enterprises are of small-scale and little money and short of practice and experience in internationalization and control of risks. However, such mode has some limitations, including lack of information, insensitivity to demand changes in overseas market, low-control on product sales, and confrontation of tariff barrier and quota restrictions on entering the target countries. These increase the operation cost of enterprises.

Characteristic analysis and comparison of all types of trading entry mode is as Table 1.

Table 1 Characteristic analysis and comparison of all types of trading entry mode

	Export Mode	Characteristics	Advantages	Disadvantages
Indirect Export	Export Houses	There are different types of export houses. The most common export houses are those who buy products from the manufacturer and sell them to overseas with their own account	Be able to handle all matters concerning export	Unable to control overseas market and information and limited sales amount
	Confirming Houses	Order products from manufacturers on behalf on overseas clients and be paid by commission; confirming houses promise to pay	Be able to handle all matters concerning export and guarantee payment	Ditto

	Buying Houses	Directly order products from manufacturers on behalf of clients like department stores	Be able to handle all matters concerning export, but manufacturers only involved in procurement and provide products according to requirements regardless of exporting	Ditto
	Piggybacking	Manufacturers sell their products through comprehensive stores' overseas sales network	Cooperate with strong trading companies which also expand product categories and sales amount	It is necessary to find proper partners. And the product sales amount may be affected by the current sales network
Direct Export	Agents	There are different types of agents: some agents only purchase products from one company and others sell products for various companies; they will be paid by commission	Compared to indirect export, they strengthen the control of overseas market and information and have continuity on the same market; the cost of agents is related to the sales amount	They may sell products of different companies. It is hard to terminate agreement with agents and the cost is high
	Distribution	Distributors will use the name of the products and won't be paid by commission	Like the agent, they are familiar with local market and can provide after-sale service; and manufacturers can control overseas market	It costs a lot to terminate contract with distributors
	Direct Selling	Assign sales representative to abroad from domestic enterprises	Have a deep understanding on enterprises and products and have a high control of overseas market and information	Lack knowledge of local market; language and culture barriers and comparatively high transaction costs
	Local Sales Offices	The staff of local sales office can be assigned from the domestic enterprises or employ the locals	Determined to expand overseas market; make it easier for overseas company to cooperate with manufacturers; more feasible and adaptable	It may be difficult to choose suitable salespersons; and the local sales representatives have little knowledge of parent company and products

Source from: Stephen Young; James Hamill; Colin Wheeler; Richard Davies: International Market Entry and Development: Strategies and Management, pp.80-81, Harvester Wheatsheaf and Prentice Hall, 1989.

Quotation from Transnational Strategies of Chinese Enterprises, edited by Lu Tong, Economy and Management Publishing House, 2003.(2)

(2) Contractual Market Entry Mode

As an internationally popular market entry mode, contractual-type entry mode is a non-equity arrangement whose importance will be highlighted in the enterprise's international practice and theoretical research. It can be further divided into three sub-modes: licensing, franchising and turnkey contracts (BOT).

1) Licensing

Licensing means that a domestic enterprise and a foreign enterprise reach an assignment agreement and the domestic enterprise assigns its right to use intangible assets to the foreign enterprise under the agreement, such as patent, trademark and company name with a certain assignment fee. As one of numerous market entry modes, licensing has its own advantages and disadvantages.

a. Advantages

First, what is assigned by the licensing is the right to use company's intangible assets and licensing can be regarded as an alternative mode for export commodities with no need to invest a mass of resources for the company and deal with overseas trade barriers and market risk, but having prospective fixed return. Secondly, with the intensity of global competition, the life cycle of product is shortened, while technological innovation is the key factor to achieve transnational enterprise's competitive advantage, which means huge manpower and material resources input and the risk of technology innovation. By using the licensing, the cross license can be realized between enterprises and technology transfer can be obtained with low cost so as to accelerate technology innovation for the purpose of entering the international market rapidly.

b. Disadvantages

Firstly, if a company wants to enter the international market by licensing, it will face a problem of the localization for its products and has to cater to local consumers' consumption custom and cultural tradition. Such process takes a certain cost for the localization and products differ a lot between countries, which may lead to greater difficulty in obtaining a license. Secondly, because of the information asymmetry and environmental uncertainty for the target country market, both parties assess the inherent value of the technology transfer differently. Compared with the direct investments/exports, return level of the licensing is

lower. Last but not the least, a low degree of the licensee's management controlled by the licensor may directly influence the prospective earnings obtained by the licensor based on the company's business performance. The long-term technology transfer may easily cause the technology spillover that could bring serious externality and potential competitors for the company.

2) Franchising

Franchising is the most common mode in contractual entry modes. The IFA gives the definition: franchising is a measure to extend the marketing channel of products and service, including two aspects: (1) the licensor assigns trademark, technique and standard business operation mode to the licensee; (2) the licensee engages in specific operating activities under the contract with the payment of royalty and franchise fee.

a. Advantages

First, franchising is characterized by little input and quick returns. The franchiser assigns its intangible assets such as trademark to the franchisee who is the investor and owner of the company. With the help and guidance of the franchiser, the franchisee will establish a standard business operation mode. Therefore, the franchise will not be restricted by the company's own resources, and the company can expand rapidly and enter the international market. Meanwhile, the franchiser sets up a simple, standard and special franchising system that is easy to expand and emulate, with less difficulty compared with the licensing. Secondly, the franchiser needs to give guidance and help for the joined company about its production and management; it tightly controls the franchisee's company in comparison with the licensing. If the franchisee does not comply with the agreement to operate, the company is entitled to terminate the contract between them. What's more, the business risk dealt by the franchising is relatively small. It can circumvent trade barriers and policy constrains imposed on the overseas enterprises, contributing to the extension and expansion for the product marketing channel in the host country.

b. Disadvantages

First, due to the unified and standard business operation mode, if there is something wrong in a joined enterprise, it will bring serious effect on the image and reputation of the franchiser and other joined companies. At the same time, the franchiser will give help to the franchisee in respect of financing, staff training and workflow design, the risk of technology spillover is inevitable during exchange and communication. Secondly, the franchise has a globally unified franchising system, when it enters different countries, various restrictions

result in localization, there will be a game relationship between the parties, which affects their business performance.

3) Turnkey Contracts Mode

Turnkey contracts mode means that an enterprise, for the purpose of a target country's engineering project, conducts design, construction and operation, and after a period of trial operation, assigns the ownership and managerial authority of such project in a whole to the target country. It can be further divided into BOT and EPC.

BOT is the acronym of build, operate and transfer, which mainly aims to undertake public infrastructure construction of a target country, mainly involving the interests of the project investor, the target country's government, project financing bank and contractors. The government provides a franchise agreement for a project, which serves as the basis of enterprise financing. The investor is responsible for financing, project design, construction and operation for a period until the completion of the project, and then assigns the ownership and managerial authority of such project to the government.

EPC (Engineering-Procurement-Construction) is the extension of BOT mode, including not only all procedures of BOT but also the preliminary plan and management for the whole project. The government only needs to briefly introduce its intention and requirement; the enterprise will take charge of the rest of work (including materials and equipment purchasing) and the employer only needs to give the fixed lump sum price for the project. Since EPC has almost included all works of a project, the standard process control and professional contractors play an important role in it.

Turnkey contracts mode reflects the principle of system and effectiveness in every aspect with explicit division of labor, optimized resource allocation and flexible organization structure. Generally, working group mode is employed and the group can be dismissed upon the completion of the project to realize optimized allocation of the company's inner resources. However, it has the highest risk among numerous market entry modes, for turnkey contracts involving every aspect of the project with long construction cycle, great uncertainty on political and market environments. As a systematic project, turnkey contract involves many stakeholders and it is difficult to coordinate.

(3) Investment Entry Mode

Investment entry mode means an entry mode that enterprises own control right of production entities through direct investment in target countries, including new establishment and merger. Compared with other modes, investment mode is an equity investment.

Enterprises can directly participate in the course of production and marketing in targeted countries, so the degree of control is high. However, they also need to invest a large amount of human and material resources, and are confronted with huge market risks, required to share responsibilities for operation results. The two investment modes of greenfield investment and merger are analyzed respectively in the following.

1) Greenfield means enterprises directly invest and establish factories in target countries. The factories are operational entities owning the same status of legal person with enterprises of target countries and all responsibilities from organizational structure, system design, personnel arrangement, equipment purchasing to production organization are assumed by the enterprises. Compared with merger, the required input obtained by the enterprises have more accurate market estimate at market prices. The overall design of newly established companies can be carried out according to strategy plans of enterprises and demands of market exactly with high flexibility. However, greenfield investment is with a longer period, larger input costs, and more uncontrollable factors. Greenfield investment can also be classified into sole proprietorship and joint venture.

Whether enterprises choose greenfield mode depends on the following factors:

a. Technology advantages owned by enterprises. The more exclusive resources such as core technology enterprises own, they are more inclined to choose the entry mode of greenfield investment to avoid risks caused by technology spillover.

b. Enterprises with rich transnational operation experience prefer to choose merger. But at the initial stage of internationalization, enterprises incline to adopt Greenfield mode to control the operation risks.

c. One key factor for transnational enterprises to keep competitive advantages is the speed of technology research and development and products innovation. As latecomers of enterprise internationalization, if they want to catch up with and surpass the leaders in a short term, the most convenient way for them is to obtain exclusive resources of other enterprises through merger to enhance their core competency.

d. No matter developed countries or developing countries, both encourage and welcome greenfield mode, which can provide employment and increase local income for host countries, but they set many policy constraints to transnational merger, so enterprises will face strict investigation and examination and approval, making them easily involved in legal disputes.

2) Merger refers to a market entry mode that enterprises get the control right of

enterprises in target countries with certain cost, which is an alienation process of ownership and power of operation of enterprise, generally including consolidation by merger and equity replacement. Consolidation by merger means that one enterprise is merged by another and the status of merged enterprise as an independent legal person does not exist anymore, and the enterprise after merger continues the operation with the legal person status of merger party. Equity replacement refers to the equity exchange among enterprises to establish a new legal person, which is a form of newly established merger. From the aspect of industrial chain, merger can be classified into horizontal merger, vertical merger and mixed merger. Horizontal merger occurs among enterprises with similar business scope; vertical merger occurs among those in different segments of industrial chain and mixed merger is a trans-industry merger among enterprises with diversification as the aim.

Enterprises merger is generally based on the following considerations:

First, economy of scale exists in some industries, making cost of unit product decrease with the expansion of enterprise scale forming a monopolistic advantage of first entrants, especially in energy and telecom industries and, merger is the most convenient and efficient method to achieve this goal.

Second, with the development of economic globalization and capital market, domestic macro-economy increasingly fluctuates. Under the circumstances of economic recession, listed enterprises may undervalue asset and at this time, it is the best opportunity to realize merger. Enterprises can consolidate their existing market monopolies and upgrade their core competency by merger.

Finally, merger is a manner for enterprises to avoid trade barrier in target countries. In the situation that governments of target countries set many industrial policy constraints to greenfield investment, merger becomes an alternative to effectively enter market, making enterprises able to integrate their own strategic resources in the globe.

2.2.3 Strategy Selection for Internationalization Development of Enterprises

(1) Location selection strategy of enterprise internationalization

Location selection strategy of enterprise internationalization means that enterprises apply and explore the location advantages of target countries and combine their own factors to construct competitive advantage of enterprise. The location selection of enterprises is limited to location advantages of target countries and enterprises' own internationalization

motivation.

1) Location advantage factors in target countries

With the development of times, the location advantages of enterprise internationalization are also in a dynamic evolution process. Traditional location advantage theory focuses on analysis about transportation cost and labor force cost. However, the latest theory development lays more emphasis on constraint factors such as systems, trade cost and information cost in target countries. Location advantage factors include cost, market, industry cluster and policy.

a. Cost factors

In classical location theory, cost minimization is the only standard for enterprise location selection. J. H Von Thunen (1826) and Alfred Weber (1909) respectively researched the influence of traditional cost such as transportation and employee salary on agriculture and industry location selection. John H. Dunning (1973) further expanded the scopes of cost factors in location selection. Meanwhile, connotation related to cost minimization is continuously deepened. Caves (1982) put forward absolute cost advantage of location selection, and Webster (1995) proposed location selection theory in the premises of potential advantages in targeted countries. He held the idea that with the development of economy globalization and trade liberalization, enterprises would select the location with minimal opportunity cost to invest.

Currently, except for considerations into traditional cost factors, theory and empirical study greatly emphases factors as trade cost and information cost. By comparison with local enterprises, foreign enterprises' entry into the target countries requires large information cost, which derives from asymmetric information between them. Local enterprises master a large amount of information about economy, society, culture, law and so on. Foreign enterprises need to spend huge cost to get this information. Therefore, enterprises in the course of internationalization will choose to enter the lower expenses location in trade and information acquisition.

b. Market factors

Market factors mainly include market scale, market growth potential, and degree of market intervention by government and so on. Large market scale implies more strategic partners to choose, low localization cost, and large potential and effective market demands when enterprises enter the market. Large market growth potential implies strong sustainability of enterprise profits. The higher degree of market intervention by government, the larger

market distortion, and market environment facing enterprises deteriorates, which finally influences expected cost and earnings. Joseph Friedman (1992) and Krugman (1991) separately analyzed the important influences of market growth potential and market scope on enterprises location selection.

c. Industry cluster

Internationalization industry cluster means that enterprises with the same type centralize in the same region up to a certain scale, for example, Silicon Valley in the USA and Bangalore in India. The influence of industry cluster on foreign direct investment location selection generates from the characteristics of industry cluster itself. Marshall used to point out that the cluster of enterprises was caused by external economies of scale, and that cluster of large quantities of enterprises may lead to the generation of supporting enterprises and skillful labor forces to reduce searching cost for enterprises, and enterprises may mutually share and spread knowledge to accelerate technology innovation. Krugman (1991) further used sharing of labor market, generation of specialty supporting industry and technology spillover as three key factors of Marshall Industry cluster theory. [1]Dunning (1998) analyzed the influence of industry cluster on translational enterprises location selection and suggested that industry cluster played a larger role in making determination on transnational enterprises location selection, rather than factor endowment traditionally.

d. Policy factors

Policy factors mainly mean the international policy and domestic policy of a host country. International policies mainly mean the export-oriented policy, such as attitudes to foreign direct investment, foreign capital management system, and acceptance of international trade disputes settlement mechanism, and so on. Domestic policies mean policies related to taxation, industry, and financial management. The setting of policies in a host country reflects liberation and openness of economy in this country, but these indicators are important considerations for enterprise internationalization location selection. According to the data in 1974-1989, Fox (1986) analyzed the influences on foreign direct investment by policy setting of each state in the USA. The results proved the influences are very clear. Through empirical studies, Mudambi (1995) and Tatoglu (1998) respectively proved the importance of government policy variation on enterprise internationalization location selection. On the whole, policy factor cannot be ignored in enterprise internationalization location selection.

2) Strategic motivation and location selection of enterprise internationalization

[1] Fu Jungian: *Competitive Advantages of Small and Medium Enterprises 'Cluster and Its Decisive Factors*, Foreign Economies & Management, Issue 3 of 2003, Page 30

The location selection of enterprises is jointly decided by the location advantage of the host country and its own conditions of the enterprise. The influence on the location selection varies in different enterprises in terms of nature and motivation of internationalization. Enterprises are divided into three types, including production model, trade type and research and development type in accordance with their natures. The location selection of overseas investment by the enterprises of production type mainly takes the factors such as political environment, international and domestic policies of the government, political government and factor endowment of the target country into consideration. Enterprises of trade type mainly consider the market scale and the potential, available sales network of the host country and trade policies of the government. However, enterprises of research and development type focus on the factors such as human capital and agglomeration degree of high-tech industries of the host country. Concerning the motivation of enterprise internationalization, foreign scholars hold the following three opinions: 1. K. Kojima (1987) divided the motivation of enterprise internationalization into three types: namely, natural resource oriented type, market oriented type and production factor oriented type. 22. Patrie (1994) divided the motivation of transnational direct investment into market oriented investment, production oriented investment and trade oriented investment.3 3. Dunning (1998) divided the motivation of enterprise's outward investment into four types: resource based type, market based type, efficiency based type and strategy based type.4 Enterprises of resource-based type are likely to choose the location where natural resources are abundant. For instance, most of the developed countries extracted the oil in the Middle East and mined the iron ore in Brazil and Australia. Production factor oriented enterprises tend to choose the regions with lower prices for capital, land and raw materials as entry zone; and strategy based enterprises incline to select the location with strategic value to obtain valuable information and technologies, thereby consolidating their own strategic advantages. Therefore, different strategic motivations of the enterprises will cause different location selection.

(2) Industry selection strategy of enterprise internationalization

1) Analysis on the developing trend of international industries

With the development of economic globalization, levels of freedom and opening up of the trade are greatly increased, resource factors flow and are allocated all over the world and

[2] Kiyoshi Kojima: *Foreign Trade Theory*, translated by Zhou Baolian, Nankai University Press ,1987, Page423

[3] A Patrie. The Regional Clustering of Foreign Direct Investment and Trade, Transnational Corporation, DEC, 1994.

[4] John H. Dunning, Location and the Multinational Enterprise: A Neglected Factor? Journal of International Business Studies, vol.29, no.1(1998),p53.

some new trends in the layout and mode develop among international industries, mainly including the following three aspects:

a. Technical dependency of industrial structure is increased.

Most traditional industries are of high input, high consumption and low output, mainly relying on continual factors input to expand production scale. This is represented by textile, steel, metallurgy and chemical industries. Since a new round of global initial structure is adjusted, industries of new pattern based on aeronautics and space industry, biomedicine, new material and new energy account for greater proportion in the global industrial structure and high-tech technologies have stepped deeply into traditional industries, thereby promoting reform and upgradation of traditional industries.

b. Gradient of industry transfer

With the changes of industrial structure, developed countries have transferred some industries of labor intensive and natural resource intensive types to developing countries to lower their own production cost and focus on high value added fields such as technical research and development, brand marketing and system design. In addition, division of labor among different industries becomes more and more remarkable, and in many industries, different production segments of the same product have been divided and transferred internationally, thereby making industrial outsourcing a phenomenon.

c. Clustering of industrial development

Industrial clustering refers to the geographical concentration of many inter-related enterprises in a specific field in the process of industrial development. Through creating external economy of scale and technology spillover effects, industrial cluster has reduced enterprise cost, accelerated technical innovation and strengthened competitive advantages of enterprises.

2) Industrial selection standard of enterprise internationalization in China

Enterprise internationalization in China starts relatively late, the scale of investment increases fast, industries involved are extensive, but the industrial structure is not so reasonable. From the perspective of industrial distribution of outward investment, industries such as retail industries and mining occupies a large portion while manufacturing industries, a small portion. Investment scarcely exists in high-tech area with high added value; enterprises engaged in primary product import and export trade concentrate while investment in service industry is obviously scarce; industrial coordination effect is comparatively weak which cannot play a role of promoting the transformation of domestic industries.

In the process of Enterprise Internationalization in China, industrial selection should be based on the following standards:

a. Industrials should have their own comparative advantages and competitive advantages.

Compared with developed countries, China has comparative advantages in terms of labor intensive industries while compared with some developing countries in Asia, China has comparative advantages in the aspect of capital and technology intensive industries. Chinese industries should actively develop their own advantages and initiatively participate in vertical and horizontal division among developed countries or developing countries. For instance, China has rich experience in textile, home appliances and light industries with developed countries as its main export destinations, so China can have its factories in developed countries and some developing countries not being limited by developed countries to avoid trade barriers, thereby increasing the market share. When it comes to the industries reaching the world advanced level such as road, bridge and irrigation and hydropower works, they can actively compete in the international market and choose those industries in Asia for further market expansion.

b. Industrial relevancy should be strong enough.

Chinese industries should focus on sectors that have strong relevancy with domestic industries. In this case, strong spread effects can be made for domestic industries and sectors and domestic industries can share spillover effects.

c. It should be good to the upgradation of domestic industrial structure.

At present, Chinese traditional industries are characteristics of surplus capacity and fierce competition. In light of these facts, part of production capacity can be released through outward direct investment. When it comes to the internationalized industrial selection, industries should transfer from resource-dependent type to technology intensive investment and gradually form industrial chain with high added value.

2.3 Enterprise Strategy Theory

2.3.1 Conception of Enterprise Strategy

Enterprise strategy is such a conception with affluent connotation that there has not been a unified definition in the theory circle yet. It is generally acknowledged that enterprise strategy is a planning of the overall objective and actions in the future made by the enterprises in the dynamic and developing environment, and the establishment of enterprise strategy

plays an important role in continuous and steady development of an enterprise. Numerous western scholars who study the strategic management explain the connotation of enterprise strategy from different angles.

K. Andrews (1972) points out that enterprise strategy is a mode of decision organically combining enterprise's objective, policy, planning, and scope of business together, and through this mode of decision enterprise forms its strategic characteristics and competitive strength different from other enterprises.

H. I. Ansoff (1965) believes that enterprise strategy is a decision-making on enterprise's management nature, which runs between business operation and product and market as a main line, and guides enterprise's operating direction and internal management.

William F. Glueck (1977) indicates that enterprise strategy is exactly the enterprise's package arrangement that is made with its own advantages in order to respond to the changes of external environment.

J. B. Quinn (1980) points out that enterprise strategy is a plan combining enterprise's objective, policy, and means tightly in order, and via the development of this plan enterprise can optimize its distribution of resource based on its own conditions and external environment.

H. Mintzberg (1990) considers enterprise strategy to be a combination of fived standard definitions as Plan, Plot, Pattern, Position and Perspective.

Michael E. Porter (1997) thinks that enterprise strategy is a unity of enterprise's long-term objectives and the approach and means to reach such objectives.

We can see from the definitions of scholars on enterprise strategy mentioned above, enterprise strategy is a complex and multifaceted conception, and any effort attempting to precisely define it just highlights its one side with bias (H. Mintzberg, 1980).

2.3.2 Development of Enterprise Strategy Theory

It is believed that the development of enterprise strategy theory experiences three stages of early strategic thinking, traditional strategic theory and competitive strategy theory, and each stage gives rise to different points of view and theoretical systems.

There is no complete theoretical system in early strategic thinking. However, some incisive viewpoints have been developed by scholars such as Fayol, Barnard, and Andrews. Fayol classifies the management activities within enterprise and puts forward five functions of

management, which especially stresses the important position of planning function. From management theory and strategic theory, Barnard separates organization theory identifying leader's work priorities, firstly proposing view that internal organization matches external environment, which becomes the basis of modern strategic analysis; Andrews analyses four components of strategy: market opportunity, company strength, individual value and aspiration, social responsibility, and proposes that enterprise should form its unique competitive strengths through the optimum distribution of resources within enterprise.

The development of strategic theory afterwards gradually transfers from paying attention to enterprise internal factors to studying external environment relationship. In this stage, plenty of literature reviews on study of enterprise strategic theory are generated and several significant schools of thought below are formed.

(1) Design school

Standpoint of this school starts by Selznick and becomes mature through the development by Chandler and Andrews. In the book named Strategy and Structure, Chandler raises his famous view of "structure follows strategy" which considers that organization structure, enterprise strategy and external environment should be mutually adapted. Andrews holds that the forming process of enterprise strategy is a process of matching the factors within enterprise and those of external environment, and on this basis he comes up with SWOT strategy formation model which is based on four analyses elements as Strengths, Weaknesses, Opportunities and Threats. Design school emphasizes the central role of enterprise leader in strategy design, and considers strategy design should focus on carefulness and follow the principle of being terse and concise as well as being easy to execute.

(2) Planning school

This school begins in Ansoff's book called Enterprise Strategy in which Ansoff thinks that enterprise strategy should consist of four elements: product and market area, growing vector, synergy, and competitive strength. Planning school pursues the normalization and method of strategic decision, deems strategy formation should be based on the principle of being controlled, detailed, and all-round. Thus a strict strategy analysis framework is formed.

(3) Positioning school

This school represented by Michael Porter highlights the important role of enterprise strategic positioning. Professor Porter introduced the theory of industrial organization in the process of studying enterprise strategy, achieving the innovative compatibility between enterprise strategy and industrial organization. Considering the formation of strategy,

enterprises should focus on their relation with business operation environment. Moreover, industry is the most direct environment of business operation and the structure of industry will determine enterprise's operation, competitive scope and its potential profitability, so that in the course of making a strategy, enterprise is required to take into account the structure of industry and relative competitive position it lies in the industry, which are two important factors. For these reasons, strategy formulation must firstly choose industries with higher potential profits and those enterprises have comparative advantages. Meanwhile Michael Porter offered such methods as five forces model, value chains decomposition and the like to analyze the competitive situation and advantages of enterprise.

(4) Learning school

The learning school, in its opinion, due to the unpredictability and abiogeny of the external environment of organizations, enterprise strategy designed in advance as standard process by enterprise may not be carried out during the evolution of enterprise. On the contrary, some viewpoints and thinking naturally formed have good performance during that process, as a result, plans and viewpoints of 1970s attract much criticism, then scholars pay more attention to the bounded rationality of organization, right and culture, as well as enterprise adaptability under the uncertain environment. Major views such as natural selection, logical incrementalism, and culture and politics take shape gradually through the studies of Lindblom, Quinn and Bower.

(5) Core competence school

Core competence, also called core competitiveness, was first proposed in an article named Enterprise Core Competitiveness by Prahalad and Hamel. They believed that core competitiveness is the technical and productive skill enabling enterprise to rapidly adapt to external environment, is enterprise's cumulative knowledge, distinctive capability to utilize its own resources, and is the hard core in enterprise capability, with outward radiation effect. A kind of competence, to be the core competence of enterprise, must possess some conditions such as valuable, imitativeness, non-substitutability and extensibility. This school believes that only in possession of the core competence is enterprise able to adapt ever-changing market circumstances and consumer demands, and form its unique competitive strength thereby.

(6) Strategic resources school

As for this school, enterprise is collective of a series of resources and competences, and enterprises in the same line of business possess different resources and competences, forming

their competitive advantages unlike other enterprises based on particular resources and competences, and they aim at nurturing its strategic resources and its capability to optimally allocate these strategic resources. Cool and Schendel indicate through their research for lots of drug industries that, special competence of enterprise is the major factor to make its performance differences.

2.3.3 Enterprise Development Theory

Enterprise Development Theory is also known as Enterprise Growth Theory. The concept of Enterprise Growth originates from biology, mainly referring to the process from infancy to maturity of the biosome. The classical economist, Alfred Marshall, firstly introduced the growth of biosome to describe the development of enterprises. In his Principles of Economics, he compares the development of enterprises to the growth of trees in forests. Since the birth of classical economics discussion on enterprise growth proposed by Adam Smith, growth theories of enterprises have been evolving and developing , so some representative views are formed gradually, making people acquire the ever deepening understanding of the objective, motivation, condition and approach of enterprise growth.

(1) Resource theory of enterprise growth

It was the British scholar Edith Penrose who first proposed Resource Based Theory for the growth of enterprises. In 1959, she took the individual firm as the research subject, in her work The Theory of the Growth of the Firm, and studied factors and mechanism of the growth of the firm. She concludes that the growth of firm is not determined by the power of market equilibrium but the resource and capacity within the firm. The selection of enterprise business diversification depends on its resources and the success rate is relevant to its fields of specificity. At the same time, the number of entered fields and industry span of the business diversification are constrained by the internal resource and field of specificity of the enterprise. Additionally, the internal resource of enterprises includes human and management resources. The scarce human resource is the induced and restrictive factor of business expansion and the lack of management resources affects the sustainable growth of the firm. Accordingly, a firm has to cultivate abundant unique resources and advantages for its growth. Penrose discussed the issue of the company growth from the perspective of internal resources; however, the influence of the external environment change on the growth of company is not taken into consideration. Moreover, scholars such as Wernerfelt and Barney further developed Penrose's theory.

(2) Industrial structure theory of enterprise growth

Michael Porter brought the SCP paradigm of industrial organization in the process of enterprise growth research for the first time. He figures out that the industrial structure is the determinant of the company to gain competitive advantages and potential profits. Besides, the factor and condition for the growth of the firm depend on the structure of the industry the firm intends to enter and the competitive advantage the firm boasts in that industry. When choosing to enter the industry with relatively high potential profit rate, the firm will obtain fairly high return on investment. The enterprise growth embodies in its expansion of diversification scale with the external market environment and opportunity as the base.

(3) Core competence theory of enterprise growth

Prahalad and Hamel consider that the growth of the firm roots in its core competence, of which the primary source is “the collective learning” in the organization. Moreover, the core competence of the enterprise contains learning, delivery of values and accumulation and sharing of knowledge and skills in the organization. Although these two scholars highlight the internal elements of the enterprise, they ignore the rigidity of the external environment and the adaptability between the internal and external factors. On this basis, scholars such as Teece advanced Dynamic Capability Theory, indicating that the growth approach of the enterprise is a process of adaptability between internal organizational capability and external environment, and sustainable competitive advantages of the enterprise are maintained through such dynamic matching.

(4) Institutional evolution theory of enterprise growth

Chandler deems that the main entity of the firm growth is modern industrial and commercial enterprises. With the establishment of the grade management system, the two-power separation appears in the enterprise, which is the foundation of further expansion of the enterprise scale. The moment the scale expands, the firm must reform its structure and system, and such reform of internal factors will spur further growth. In aspect of institutional evolution, Chandler puts forward three growth motivations of enterprises: organizational structure, administrative coordination and organizing capability.

(5) Life cycle theory of enterprise growth

In the course of the development of Enterprise Growth Theories, some scholars compare the enterprise to the biosome. Moreover, the growth of enterprises needs to experience different stages with diverse characteristics and conditions of the life cycle like the biosome. Besides, the firm is in the ecological community of enterprises as an individual.

2.3.4 Diversification Strategy Theory of Enterprise Development

(1) Evolution of diversification strategy theory of enterprise development

H. I. Ansoff studied the development and change of top 100 enterprises in United States from 1909 to 1948 in his article Strategies for Diversification in 1957 and proposed four orientations for enterprise growth: (1) growing in existing market; (2) developing new markets; (3) developing new products; (4) diversifying. In addition, he pointed out that only developing new market with new products belongs to the category of diversification strategies, which clearly defined diversification for the first time.

In 1959, Penrose discussed the issue of enterprise diversification in her monograph The Theory of the Growth of the Firm, in which she mentioned that enterprises continuously accumulated internal resources in the procedure of growth and owned the impulse to apply these resources in other fields. Consequently, diversification becomes the choice when enterprises develop to a certain phase. Furthermore, she thinks that diversification of companies is a process of extending new production capacity and developing new products, including enhancement of vertical integration degree and expansion of production fields, on the basis of retaining original production capacity.

In 1962, the economic historian A. D. Chandler proposed “structure follows strategy” in his work Strategy and Structure. As far as he was concerned, the growth of the firm has to undergo four stages and each stage has its corresponding form of organizational structure. The four stages include: (1) quantity enlargement stage (2) region extension stage (3) vertical integration stage (4) business diversification stage. And he advanced the decentralized management structure in the business unit of the corporation consistent with diversification development stage of enterprises, which is adopted by many U.S. companies.

In 1962, M. Gort firstly studied diversification of enterprises on the foundation of quantitative analysis and measured the degree of enterprise diversification in the light of four-digit industrial classification in American Standard Industrial Classification and Code. And he held that the diversification of the firm is the increase of the number of industries the firm operates.

In 1970, L. Wrigley put forward the method of measurement and classification of the diversification degree in his doctoral thesis. He defined the Specialization Ratio as the proportion of a certain category products occupies in total sales and divided enterprises into four types: single product, dominant product, related product and unrelated product, according

to the Specialization Ratio from low to high.

American scholar R. P. Rumelt studied measurement of the diversification degree further in 1974 and, based on Wrigley's theory, proposed the concept of the Related Ratio, referring to the proportion of the largest set of related business sales occupied in total sales. Besides, he studied the performance of various kinds of diversification forms with the sample of U.S. big business and concluded that compared with unrelated diversification, the performance of dominant intensive and related intensive diversification with unique technology and capability of the firm itself as core is the best.

In 1987, Porter figured out that the failure rate of unrelated diversification by conglomerate merger was highest through statistical research on diversification course of 33 American enterprises from 1950 to 1986. Therefore, enterprises have to pass three tests including industry attractiveness, entry cost and mutual benefit when developing diversification.

(2) Analysis on the motivation of diversified development of enterprises

1) Market power theory

Market power theory mainly investigates the motivation of diversified development of enterprises based on competition structure of market, which mainly stresses the anti-market competition effects of mixed operation of enterprises. It is generally acknowledged by scholars that the reason why enterprises of diversified development can achieve better business performance is not because of higher efficiency compared with those enterprises with single operation, but the market power brought by mixed operation. Hill (1985) further clarified this view. Edwards (1955) put forward that the market power owned by a business group not only depended on its status in this field, but also the range of activities and characteristics of other industries, moreover, enterprises can further extend and consolidate their market power by using this kind of strategy which was different from traditional monopoly. Subsequent researches expand Edwards' view and stress three ways of anti-market competition:

a. Cross subsidization

It means the behavior that enterprise subsidizes its predatory pricing in one industry by using super profit earned in another industry.

b. Consultation and harmony

When competition happens in the same product field of many markets between two competitors, they find that interaction and compromise reached by negotiation or other ways

will benefit both of them. In such way, enterprises can remain in harmony, thus the intensity of competition in the industry is reduced further.

c. Reciprocal purchasing

Manufacturers of mixed operation continuously strengthen their strategic alliance relationship by reciprocal purchasing, which excludes small competitors from competition and weakens the intensity of competition, but raises the level of industry concentration.

2) Risk diversification theory

H. M. Markowitz put forward portfolio theory in 1952 and laid a foundation for modern investment theory. This theory mainly states that enterprise will face two kinds of risks in market management: systematic risk and unsystematic risk. Systematic risk or market risk cannot be avoided by investment portfolio, while unsystematic risk can be eliminated by diversified investment of enterprise. In the case of a given return on investment (ROI), enterprises can minimize risk via diversified asset portfolio or maximize income in the case of a given level of risk in the same way. The lower the correlation of projects invested by enterprises, the easier enterprises can avoid unsystematic risk and the higher rate of return enterprises can get, because different industries own different products, and the characteristic, life cycle and management status are also different, so does the market elasticity of demand. So different industries have different risks and it is possible for us to reduce risks through portfolio investment, just like that we do not put eggs in the same basket.

The diversified development of enterprises is just the same; enterprises expect to enter different industries to avoid risks. For example, the development of some industries is pro-cyclical, but some are countercyclical. Enterprises can get stable cash flow through entering these two complementary industrial fields, thus strengthening their ability to avoid risks in the constantly changing market environment and creating sustainable competitive advantages. On the other hand, with the expansion of diversified development of enterprise, internal management costs and operational risks of enterprises will also increase, which cannot be resolved by diversifying industrial risks.

3) Principal-agent theory

The core of governance mechanism of modern company is the separation of enterprise's ownership and management right, and such separation mode gives rise to many problems. Scholars mainly argue about the reasonable scope of business of diversified development of enterprises, and explain it from the perspective of principal-agent. Some scholars, such as Mock and Schleifer, consider that if shareholders of an enterprise are scattered and operators

only hold a few shares, shareholders are unable to give necessary supervision on operators, so operators are likely to pursue their own interests, but not to maximize shareholder value. And mixed-industry merger and diversification of enterprises is often one of the convenient ways for operators to pursue their own interests. Therefore, scholars regard that the phenomenon of enterprise diversification is one of main embodiments for principal-agent issue, resulting from the separation of enterprise's ownership from management right. From the perspective of principal-agent theory, enterprise diversification is generally based on the following two considerations. One is to avoid unsystematic risks and increase incomes of enterprise and utility of operators by means of diversified operation of enterprise; the other is that shareholders being the owners of enterprise's residual claim can disperse business risks for enterprises by investment decision, but cannot reduce occupational risks of operators. Thus, most operators are likely to reduce their own risks through diversification, which can expand the scale and market influence of enterprise, and enhance operators' reputation in professional managers market. Meanwhile, operators can develop in some professional fields that they are familiar with, and can give full play to their professional advantages, so that enterprise development relies more on operators and their indispensable roles are highlighted, thus increasing their abilities to bargain with shareholders.

4) Economy of scope theory

Economies of scope theory points out that enterprises cost less to be engaged in production activities of multiple products than the production of a single product independently in total, because it will generate resource sharing and synergy during this process. Now that most of the investment in production of enterprise have minimum size and cannot be further divided, it will lead to remaining resource and cause certain waste. If the remaining resources are used for the production of other products, it will improve the utilization rate of resource, share the costs of enterprise and reduce the cost of unit product, thus forming economy of scope, which will grow out of different value- added links such as technology research and development, production, sale and after-sale service.

Economy of scope is generated on the basis of both tangible and intangible resources. The tangible resources of enterprises generally include research and development system, production capacity, marketing network. Via the sharing of tangible resources in different businesses, it can generate synergy and reduce the cost of unit product. But the premise of such sharing is that resources must be of certain generality. If the monopoly of resource is much stronger, the ability of transfer and sharing among products will be much worse, and the

advantages of economy of scope will be less obvious. The intangible resources of enterprises generally include their trademarks, reputation, management skills, which can be transferred among different businesses of enterprise with lower costs. Managerial experience and knowledge of managers can be used in different industrial fields. What is needed is only small marginal change cost, and to some extent, it has the characteristics of public goods.

In essence, economy of scope mainly reflects synergy instead of economy of scale, which is on the basis of the generality of resource. There must be certain relevance among businesses needed to transfer. And the higher the relevance, the lower the production cost of unit product, but economy of scope is only one consideration for the diversified development of enterprises and the function of economy of scope in diversification decision still remains to be verified. 2.4 Strategic Selection Theory for Diversification Development of Enterprises

2.4.1 Industrial Organization Theory Based Selection Theory

As an independent subject separated from microeconomics, industrial organization theory is one of the most vigorous and fruitful fields in recent years. In the process of development starting from A. Marshall's neoclassical economics to Chamberlin and J. Robinson's monopolistic competition theory and from Mason and J. Bain's SCP theory paradigm to Coase and J. Stigler's transition cost theory, industrial organization theory has been enriched and formed an independent theory and method. Industrial organization theory gradually thrusts itself into the development of the theories of company organization and company strategic management, which generates some valuable analytical perspectives.

In 1980s, Michael Porter first introduced industrial organization theory based on Structure-Conduct-Performance (SCP) to the field of company's strategic management (as shown below). From the figure below, it can be concluded that industrial structure is determined and measured by factors such as the competitor's amount, products' specificity and entry and exit cost, company practice refers to a company's business operation in the industry, and economic performance includes two aspects: the company' economic performance and the social economic performance.

The paradigm indicates that industrial structure decides the industrial average profit rate and affects a company's strategic selection behavior, which will ultimately produce an effect on the company's business performance. Michael Porter puts forward in his book Competitive Strategy that a company's diversification selection consists of internal development and external merger. Internal development is confronted with industrial structure entry barriers,

and threat and revenge from existing competitors, both of which will produce relevant cost on the company. The former is composed of the company's pre-investment and entry loss, and the latter mainly refers to the cost caused by competitive behaviors such as price reduction. Relatively, a company selecting acquisition and merger to achieve diversification may be based on the following considerations. First, the seller has a low psychological price for maintaining the business. Therefore, his bargaining power is weak in the sale negotiation. Next, the market where the seller lies is incomplete and the purchase process is free from the market-based instruments such as bidding, therefore the company can retain its original monopolistic advantage in the new business field and gain super-normal profit. Finally, the company is capable of operating the acquired business with special resources. Michael Porter discussed companies' diversification strategy in Competitive Advantage, and laid stress on relevant diversification. He considered that a company should make full use of relevant diversification to maintain its industrial advantages and competitive power. Both tangible and intangible connections ought to be taken into consideration for the company's diversification strategy. Considering that intangible connection has an inconclusive effect on competitive advantages, the company's diversification strategy should take tangible connection as the basis and starting-point. Only when tangible connection is possibly unavailable, can intangible connection enter entrepreneurs' vision.

In conclusion, Porter's competitive strategy on diversification strategy is mainly embodied in the following three aspects.

(1) Porter stresses the significant influence of industrial structure in his analysis of diversification strategy and holds that a company should enter a field with industrial attractiveness where the company can give the rein to its competitive advantage.

(2) The company's diversification should focus on relevant diversification, as a result the value chain of each business unit of the company can be shared and it can produce low cost and product differentiation advantage.

(3) Since a company enters a new business field in the way of internal development and external merger, the effectiveness of the two ways depends on the internal and external factors of the company.

2.4.2 Resources Capacity Based Selection Theory

After 1980s, new development of resource-based theory and core competence theory was proposed respectively by Scholars represented by Penrose and Prahalad emerged in

company's strategy theory, which makes the concentration of research on company strategy divert from the external environment to the internal factors for the first time. In 1984, Wenerfelt raised that the resources of a company were the combination of its tangible assets and intangible assets. In 1959, Penrose proposed that the resources of a company could be divided into human resources and material resources. The core competence of a company can be comprehended in accordance with the aspects of the elements and knowledge characteristics. In the aspect of elements, a company's core competence refers to its capability of developing, producing and marketing. In line with knowledge characteristics, a company's core competence refers to the knowledge system with the company's characteristics and specificities that are impossible to copy or acquire.

Resource-based theory holds that a company is an aggregation of a series of resources and capabilities. The reason why a company can maintain its competitive advantage lies in that the company possesses a great amount of special resources and strategic asserts which cannot be replaced, replicated or transacted. The company's core competence theory insists that the competence of a company, unequal to the resources of a company, which covers soft strength such as the knowledge, experience and technique of the company, is the principal competence of allocating, using and integrating the resources. Hamel further pointed out that a company's competitive advantage depends on not only its resources but also the organic combination of the resources and technique.

Resource and capacity based view holds that a company must possess necessary resources to achieve diversification. If the company has a lot of idle resources and surplus capacity, it tends to expand its scale of production. As a result, the economic rent caused by pursuing economy of scope and sharing strategic capacity will produce unremitting competitive advantage and higher economic performance (Barney, 1988). In 1981, Bettis found in research that the development and use of core technologies is closely related to the business performance of the companies that have carried out relevant diversification strategy. In 1988, Wernerfelt and Montgomery's research reflected that each company has different resources, and the higher the specificity of resource is, the smaller the applicable scope of production it can be used and the higher the marginal return it can produce. The resource with low specificity can be easily replaced and copied and has abundant supply and wide applicable scope, which can set the stage for the company's application of relevant diversification strategy but can only collect relatively low economic rent because of the widespread supply of the resource. Based on theories mentioned above, different levels of

optimum diversification strategy are applicable to different nature of companies. For a company with high specificity of resource, it can gain higher absolute profit if it selects the low level of optimum diversification strategy. For a company with low specificity of resource, its selection of high level optimum diversification strategy contributes to achieve profit maximization. In 1991, Chatterjee and Wernerfelt discovered in their research that compared to irrelevant diversification based on financial resources, the company adopting irrelevant diversification strategy based on its intangible resources could achieve higher business performance. If the level of a company's diversification development is within the limit of its strategic resource and capacity, the diversification of the company can improve its performance. If the level of a company's diversification development exceeds the limit, these resources will not bring about extra rent. If the capacity of a company is implanted to its structure, it can internalize the international market through diversification strategy to protect and use the capacity effectively (Buckley). In 1990, Prahalad and Hamel remarked that, during the implementation of the diversification development strategy, a company could increase the rent flow without raising the cost, if the company can make use of the current business organizational routines or the market realm of the strategic resources that yield rents. On the contrary, the company is unable to improve its economic performance if it carries out diversification strategy in the market where it is unable to use its existing capacity. Therefore, the company should adopt relevant diversification which takes the resource and capacity as the core to expand and infiltrate outward. In 1991, Montgomery and Hariharan's research showed that when a company embarks on the diversification strategic expansion, it usually selects the industry that is relatively close to its own resource and capacity.

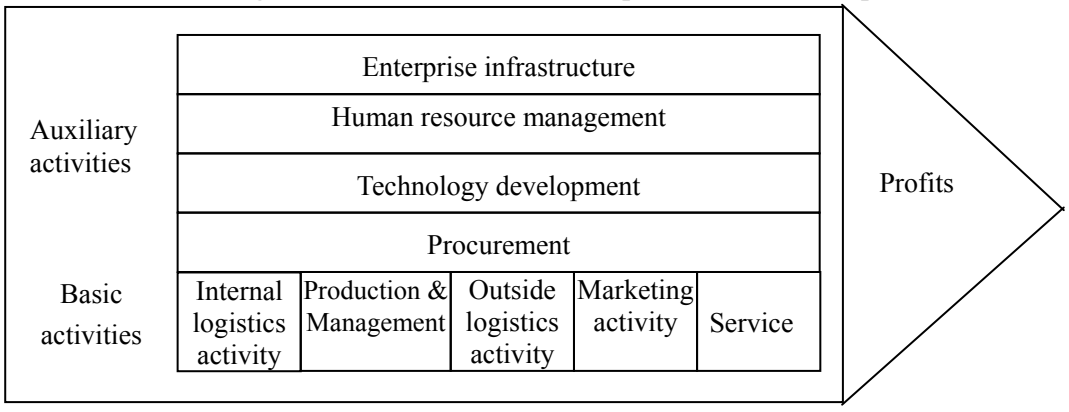
2.4.3 Value Chain Based Selection Theory

The enterprise value chain theory was first introduced by Porter in 1985 and gradually becomes the basis of the correlation of analyzing the enterprise activities. Porter points out in the value chain theory that each enterprise is an integration of design, manufacturing, marketing, service and other series of activities, in which they are, according to their different positions in manufacturing, divided into different production links that make up the whole of the activities creating value in the enterprise. The enterprise value chain is made up of mutually independent and relative link that becomes the value-added activities of the enterprise, which leads to the unique competitive advantage of the enterprise. The value-added activities of the enterprise are categorized into the basic activity and auxiliary

activity in the value chain theory by Porter, as shown in figure 1.

The basic activity mainly includes the internal logistics, production and management, marketing, after-sale service and other activities of the enterprise, which make up the body of the internal activity of the enterprise, while the auxiliary activities mainly include the technology research and development, human resource management, the procurement of raw material and other activities. The latter plays an auxiliary role to the basic activity. The basic activities and auxiliary activities jointly support the whole value-creating activities of the enterprise. Links of value chain are interrelated and interactional with each other, and the effect varies in the different position of each link in the value chain, for example, if the procurement of the raw material and preliminary process are strictly controlled, the cost of the enterprise at the beginning of the period will be increased. But the number of the degraded product and process time in the process links would be reduced, thus increasing the enterprise's potential benefit. Based on the product circulation procedure of each link in the enterprise's value chain, the value activities of the enterprise are divided into the upper link and the lower link. The upper link is mainly related to the manufacturing technical feature of the product, including the supply of raw materials, the technology research and development, manufacturing product and other links; the lower link is mainly related to the product service and customers, including the storage and transport of the final product, marketing, after-sale service and other links.

Figure 1 Value chain and its composition of the enterprise



The value chain theory by Porter mainly analyzes the composition of the internal enterprise value chain of the industry. However, Kaplinsky (2000) extends it, on the basis of

the theory, and analyzes the relation of value chain between different industries, the compositions of which are different from each other as well as the link creating value in the value chain. For example, for the industry of resident consumer goods, marketing and public relations are the major link creating the value of the enterprise. For the equipment manufacturing enterprises, the product design and production technology are the major link creating the value; for the pharmacy industry, the research and development of the product and drug clinical test are its most important link creating the value. All these different links creating the value make up the core activity of the enterprise.

The enterprise making specialized operation could pool all resources into the single value chain of the enterprise, thus forming the core competence of the enterprise in an easy way, but facing rapidly changing market environment and consumer demand, it tends to react slowly. The enterprise conducting the diversification operation has multiple value chains within itself, which could be divided into the vertical integration, horizontal integration and uncorrelated diversification based on the correlation of these single value chains.

(1) The vertical integration means that there are multiple value chains in the enterprise, which make up different stages in the value chain of the same industry, and it belongs to the relation between the upper link and the lower link in the industry value chain. For example, the enterprise is involved in both the spinning and textile business, and the final product of its spinning business is the preliminary input of its textile business. Therefore, it is easy for each link of the enterprise value chain to form the internal trading market and reduce the trading cost of the enterprise so as to improve the net profit during the process of increasing its added value.

(2) Horizontal integration means the relation of mutual cross and mutual penetration between multiple value chains in the enterprise that all belong to part of the industry value chain, the cross part of which could be used by each other forming the synergistic effect. For example, an enterprise could produce the refrigerator, TV, washing machine and other products in the appliance industry. The cross of the value chain could be used on the product design, technology research and development, marketing work and other value-added links to form the synergistic effect, enable the enterprise to possess the advantage of specialized operation and avoid the disadvantageous factors.

(3) Uncorrelated diversification means that it does not have any correlation between the multiple value chains of the enterprise and it belongs to the value chain of different industries. When the enterprise takes this diversification strategy, the resource needs to be put into

separately, which leads to the fact that the resource in every industry is insufficient and the value-added process of the value chain does not produce any synergistic effect. Therefore, it is not favorable for the long-term development of the enterprise. Many scholars' research indicates that the enterprise conducting the uncorrelated diversification has higher failure rate. In this case, during the operation of diversification development, the enterprise shall depend on its own resources and natural endowment, analyze the position of its internal value chain in the value chain of the industry as well as the mutual relation between every single value chain to formulate the strategy of the diversification development of the enterprise.

2.5 Summary of this chapter

This chapter has elaborated the following aspects through review and summarization of literatures.

(1) Internationalization and related concepts

Based on four definitions of enterprise internationalization in the academic circle, some basic measurement methods of the level of enterprise internationalization are introduced.

(2) Theoretical analysis on enterprise internationalization strategy

The major factors influencing enterprise internationalization are summarized and the market entry mode selection, location selection and conditions for industry selection are expounded.

(3) Enterprise strategy theory

Several definitions of enterprise strategy are given, and development stages and their corresponding viewpoints and theory system at different stages are explained. The evolution of multi-strategy theory of enterprise development and its motivation of diversification of enterprise are analyzed.

(4) Strategic selection theory of diversification

The stage evolution and major viewpoints of strategic selection theory of diversification development based on industrial organizations, resource capabilities and value chain are expounded in this chapter.

Chapter 3: Research Design and Methods

This chapter gives an introduction to research methods and tools employed in this thesis, providing technical support for latter research.

3.1 Research Methods

3.1.1 Research Philosophy

It is very necessary to lay stress on the importance of the philosophy basis prior to the research. Easterby-Smith et al (1997) put forward three fundamental facts to emphasize the importance. The three aspects are as follows: firstly, researchers can get clear thoughts and frames in their design of research methods and strategies from the philosophical concept. Secondly, different methods and tactics are compared and evaluated before the research is conducted; the most applicable one is chosen. This way to choose can simplify the research progress. Finally, philosophical concept inspires the researchers to apply new methods during the research.

Two kinds of analytic philosophy, positivism and interpretivism, are applied in the scientific research, in which positivism is a quantitative analysis model frequently used in the investigation, while interpretivism is a qualitative one often adopted in the research (Hirschheim, 1985, P. 33). The former is also called empiricism, whose essence is that one can acquire regular and observable facts from the objective viewpoints, while the latter, also called post-positivism, contains that one can know the connotative law of the phenomenon from the subjective explanation.

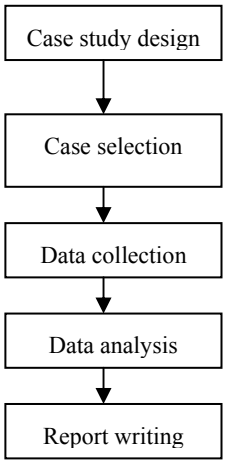
Frank Crossan once pointed out that the differences between positivism and interpretivism were excessively overstated, and one should make clear the advantages and disadvantages of each analysis model. Qualitative analysis philosophy is applied in this thesis to develop the main research content.

3.1.2 Case Study

Among the fourteen research methods defined by Galliers (1991, P. 149), case study is most widely used, in which generally one single object, an individual, an event or an organization, is investigated in detail. Researchers, based on the analytic philosophy, can

apply the positivism model or the interpretivism one in case analysis, and study the facts deeply and comprehensively with the data collection and by certain research method. The main process of case study is as follows:

Figure 2 Flow chart of case study



Four indexes, construction validity, internal validity, external validity and reliability, are applied to evaluate the design quality of the case study.

Researchers can get systematic viewpoints from the case study. They can clearly understand the causality of the event by inspecting the study objects in depth to have the regular and instructive understanding. However, such matters as the analytical nature of the case study, the limitation of the technique, the subjective preference and the intensiveness of time and labor have great influence on its effectiveness.

3.1.3 Other Research Methods

A series of research methods have been applied in the academic research, and according to the definition of Galliers they are shown in Table 2 below.

From the aforementioned, there are two mainly methods, namely, positivism and interpretivism, applied in the scientific research, and a number of sub-types are contained in each broad category, but no more details of these research methods are discussed here. Based on the above analysis of case study's merits and demerits, the comparison of the above methods, and the availability of the information in this thesis, case study is the focus of the later analysis.

Table 2 Classification of research methods

Positivism	Interpretivism
Laboratory test	Argument/refutation
Field test	Comments
Investigation	Research
Case study	Descriptive/interpretative
Theorem proving	Future research
Prediction	Roll play
Imitation	

Sources: Galliers, R.D. (1991) Choosing appropriate information systems research approaches: a revised taxonomy.

3.2 Methods of data Collection

3.2.1 Questionnaires

A variety of ways is applied to collect data, such as questionnaires, personnel interviews, and investigations, among which questionnaires are adopted in this thesis. The questionnaires, from which data is obtained to form AHP judgment matrix and the weight value of the elements in the SWOT model, are mainly from researchers of the construction field, experts and company managers.

Two questionnaires are provided to acquire AHP judgment matrix and the weight value of the elements in the SWOT model. For the purpose of determining the relative importance of the indexes in the evaluation system, the answerer is required to score the statistical items in the first questionnaire.

The seven-grade means, proposed by Likert, is used to make the score. The score range is from 1 to 7, in which 1 means that the index is totally without importance and can be ignored, while 7 stands for primary importance. Five-grade means is adopted in the second questionnaire and the details of the questionnaires are attached to the appendix of this thesis.

3.2.2 Advantages and Disadvantages of the Questionnaire

Following are the main advantages of the questionnaires. Firstly, the questionnaires are well designed with the standard ways, so the data collected can reflect the real world more objectively than that collected through other methods, such as interview. Secondly, applying questionnaires to collect the needed data is of low cost but high efficiency. What the researchers have to do is to design it well and consider in advance the patience of the

investigators. At last, if the questionnaires are sent to the appropriate persons at the suitable time in the right place, the recovery rate and the qualified rate of the questionnaires will be much higher.

However, the inherent feature and potential disadvantages should be considered. Generally, the disadvantages of the questionnaires are as follows. Firstly, it takes much time and energy to design and distribute the questionnaires. Secondly, the interviewee has a slim chance to express his ideas and doubt due to its standardization. Thirdly, it is rather difficult to process the data. Finally, as the required recovery rate and qualified rate cannot be assured in advance, a large number of questionnaires should be sent out.

In spite of the advantages and disadvantages, questionnaires are still regarded as the most applicable method to collect the data in this thesis due to numerous supporting details.

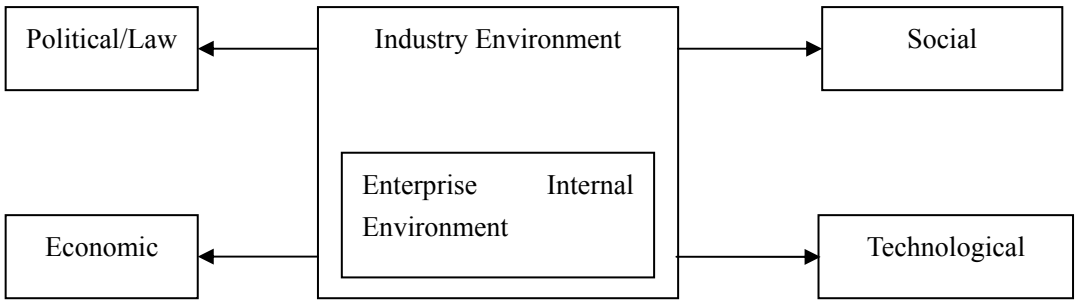
3.3 Qualitative Analysis Tool

The SWOT analysis method, "Five Forces Model" and the PEST analysis method are three kinds of qualitative analysis tools used by this thesis, which are introduced in detail in the following part. The SWOT analysis method is a tool to analyze internal or external environment of enterprise. The external environment here can be divided into opportunity and threat and the internal environment divided into advantage and disadvantage. However, Porter’s Five Forces Model specializes in the analysis of current industry environment of enterprises. The PEST analysis focuses mainly on the analysis of political, economic, social, technological and other external macro environment of enterprise. We can have a comprehensive understanding of internal and external environment facing enterprise through mutual combination and application of the three main analysis tools, laying a solid foundation for formulating enterprise strategies.

3.3.1 PEST Analysis Method

PEST analysis method refers to the macro environment analysis. P is Political System. E is Economic. S is Social. T is Technological. These four factors are usually used to analyze the situation facing enterprise in the analysis of enterprises’ background, shown in Figure 3.

Figure 3 Structure chart of PEST analysis method



(1) P, politics, political factors, refers to political power and relevant laws and regulations, and other factors that have actual and potential impact on the operating activities of an organization. When political regulations and political system change, the government changes its attitudes to the business operated by organization, and the government issues laws and regulations binding business operations, the management strategy of enterprise must be adjusted correspondingly.

(2) E, economic, economic factors, refers to the economic system, economic structure, industrial layout, resource situation, economic development level and future economic trend of a country and so on. The key factors constituting the economic environment include the change and development trend of GDP, level of interest rate and inflation degree and trend, unemployment, residents' disposable income level, level of exchange rate, energy supply cost, perfection level of market mechanism, market demand status and so on.

(3) S, society, social factors, refers to members' national characteristics, cultural tradition, values, religious belief, education level, customs and other factors in the society where an organization is in. Factors constituting social environment include population scale, age structure, race structure, income distribution, consumption structure and level, population mobility.

(4) T, technology, is technological factor. Technical factors include not only those inventions that cause revolutionary change but also the emergence and development trend, as well as application prospect of new technologies, new processes and new materials related to business production.

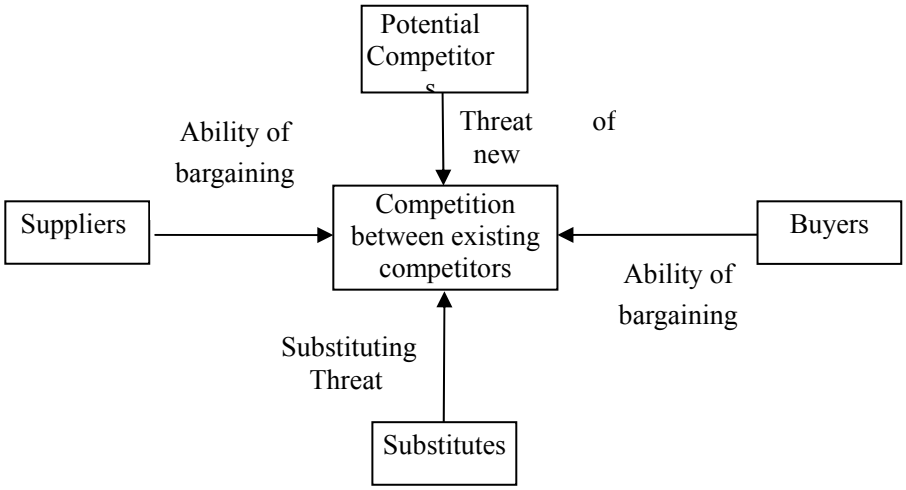
Before making market strategy and business plans, every company must review its external environment. The ultimate purpose of the PEST analysis method is to provide some support and help for the decision-making process of enterprises. Many researchers used this

analysis method in research. For example, Bharat Book Bureau (2007) evaluated retail banking of India based on PEST analysis method.

3.3.2 Porter's Five Forces Model

Proposed by Michael Porter at the beginning of 1980s, the thought of Five Forces Model has a profound global influence on the strategy making of enterprise. If it is used for the analysis of the competition strategy and we can effectively analyze the competitive environment of enterprise. "Five Forces" respectively are suppliers' ability of bargaining, buyers' ability of bargaining, potential competitors' entering ability, substitutes' substitutable capability and competitors' existing competitive power, shown in Figure 4.

Figure 4 Structure Chart of Five Forces Model



Decision makers can clearly understand the competition intensity of the industry and the growth of profit through analysis of these five competitive forces of industry, thus providing certain scientific evidence for the enterprise to enter the industry.

3.3.3 SWOT Analysis Method

The SWOT analysis method is an internal analysis method of enterprise, which is used to analyze its own internal conditions, find out advantages and disadvantages of enterprise as well as the core competitiveness. At the same time, it requires that the enterprise pay much attention to the change of external environment of enterprise and make full use of opportunities provided by external environment of enterprise and avoid threat. Thereinto, S stands for strength; W stands for weakness; O stands for opportunity; T stands for threat. S

and W are internal factors; O and T are external factors. According to the complete concept of enterprise competition strategy, the strategy should be an organic combination of enterprise being able to do (strengths and weaknesses of organization) and being likely to do (opportunities and threats of environment), shown in Table 3.

Table 3 SWOT Analysis Method

	Beneficial to the realization of objectives	Not beneficial to the realization of objectives
Internal attribute of organization	Strengths	Weaknesses
External attribute of organization	Opportunities	Threats

From the table above, it can be seen that the SWOT analysis method is usually to scan the internal and external environment of an enterprise at a certain time, and then analyze the advantages, disadvantages, threats and opportunities, thus forming four kinds of internal and external strategies matching each other. They are, SO strategy: depend on internal advantages and use external opportunities; ST strategy: use internal advantages and avoid external threats; WO strategy: use external opportunities and overcome internal weaknesses; WT strategy: reduce internal weaknesses and avoid external threats.

The basic steps of SWOT analysis method are:

(1) Analyze internal strengths and weaknesses of an enterprise with respect to the enterprise's objectives or competitors.

(2) Analyze external opportunities and threats facing enterprise which may come from the change of external environment factors irrelevant to competition or from the change of power and factors of competitors or both of them. But the key external opportunities and threats should be confirmed.

(3) Match external opportunities and threats with internal advantages and weaknesses of enterprise to form feasible strategies.

Ansoff (1965) points out that the capability of the enterprise to make effective competition strategy was reflected in the continuous integration of its internal strengths and external environment.

Michael porter makes a deconstruction of external industrial environment of enterprise from the analysis on industrial structure of enterprise, and puts forward the famous idea of "Five Forces Model" and gives explanation of what enterprise is likely to do. The competence

and resource school analyzes the value creation activities of enterprise in each link from the decomposition of enterprise value chain and emphasizes the importance of enterprise resources and capabilities to form competitive advantages. Moreover, SWOT analysis method integrates the two ideas above and combines the analysis of industrial environment of enterprise with internal resources and conditions together. This thus forms a balanced and structural analysis system and emphasizes the comprehensive consideration of external environment and internal resources from the perspective of structural analysis.

3.4 Quantitative Analysis Tools

The above introduces qualitative analysis tools employed in this thesis. Through the usage of these tools, we have a clear understanding of the external environment in which the enterprise locates, and know clearly the enterprise's own resources and conditions. In order to gain more accurate and clear information and realize the combination of qualitative and quantitative analysis, we respectively present the analytic hierarchy process (AHP), fuzzy network process and data envelopment analysis commonly used in quantitative analysis, and explain the concept, framework, process and characteristic of each method.

Through comparing the complexity, operability, completeness and other evaluation indexes of these methods, we finally choose analytic hierarchy process as the quantitative analysis of this thesis, to make full use of the clear structure and convenient operation of AHP method, as well as the combination of quantitative analysis and qualitative analysis.

This thesis introduces AHP method into SWOT structure. Through ranking the relative importance on objective hierarchy of four layers such as the opportunity, threat, strength, weakness and between two layers, it enhances the applicable capability of SWOT analysis in strategic decisions. With the above comparison and sorting, the enterprise masters the accurate environmental information concerning its decision, which provides an important basis of decision-making for its strategic selection.

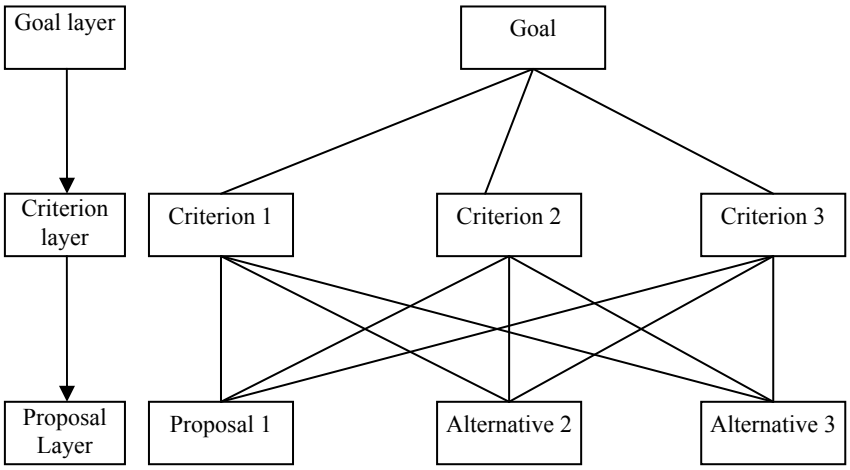
3.4.1 Analytic Hierarchy Process (AHP)

AHP was first proposed by American operational researcher T. L. Saaty. It is a structure method to deal with complex decision-making, as well as a typical combination of qualitative analysis and quantitative analysis.

AHP, firstly classifies elements in connection with problems according to subordination

and relevance, and build a hierarchical structure model, shown in the following figure 5. Then the author compares elements between two of all layers, defines the relative importance of each element, and finally makes comprehensive judgments to generally rank the relative importance of evaluated objects.

Figure 5 The simplest multi-hierarchical structure



Saaty (1980) deems that AHP is appropriate for analyzing the following 12 research problems: 1. planning. 2. Make multiple alternative programs. 3. Set priority. 4. Select the best program. 5. Resource allocation. 6. Define demand. 7. Estimate output or risk assessment. 8. System design. 9. Performance measurement. 10. Check the stability of system. 11. Optimization. 12. Resolve conflicts.

Saaty's AHP processes system problems as follows: first, analyze and evaluate each statistical index of system, and develop corresponding hierarchical structure, and based on this hierarchy model, objective problems are decomposed into different element layers according to its subordination and relevance connection. Generally it is divided into three layers: objective layer, criterion layer as well as strategy layer. Objective layer is usually a problem of system evaluation, only including one index as the evaluation objective and result of the model. Criteria layer includes some evaluation index explaining the objective layer. Strategy layer consists of some alternatives providing for the achievement of objectives. Secondly, compare the relative importance of elements in the same layer. Assuming that, there are n indexes $X = \{x_1, x_2, ..., x_n\}$ impact element Z, AHP suggests to compare between elements included in X vector, and form a judgment matrix. That is, to select two elements in

X vector every time, compare their impacts on Objective Z, so the result is a_{ij}. All the compared results form a $n \times n$ Matrix A. Here, the change range of i and j is from 1 to n.

$$A = (a_{ij}) = \begin{bmatrix} 1 & w_1/w_2 & K & w_1/w_n \\ w_2/w_1 & 1 & K & w_2/w_n \\ M & M & K & M \\ w_n/w_1 & w_n/w_2 & L & 1 \end{bmatrix}$$

Finally, rank it according to the relevant importance of each statistic item and calculate $w_i^* = \sqrt[n]{\prod_{j=1}^{n} a_{ij}} (i = 1, 2, \ldots, n)$, $w_i = w_i^* \Big/ \sum_{i=1}^{n} w_i^*$, $S_j = \sum_{i=1}^{n} a_{ij}$ and the maximum character value $\lambda_{\max}$ of Matrix A. In order to ensure the consistency of comparative judgments, we need to design an index CI to test, and $CI = \frac{\lambda_{\max} - n}{n-1}$. In order to measure the consistency of matrix in different ranks, we may calculate and judge the average and random index RI of the matrix, shown in the following table 4.

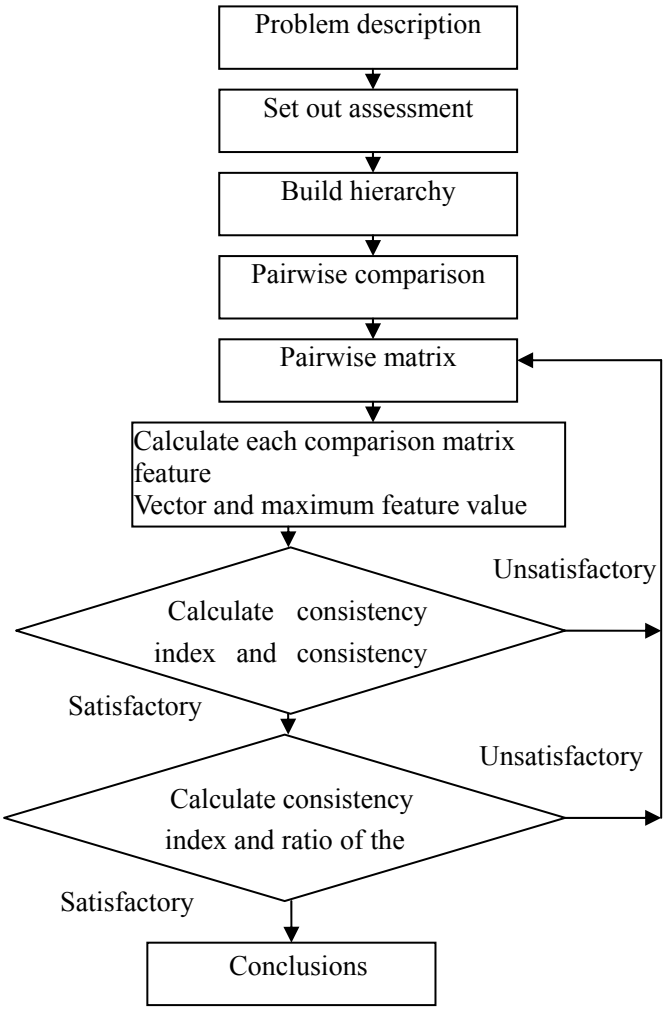
Table 4 RI value of ten-order matrix

Matrix order n	1	2	3	4	5	6	7	8	9	10
RI	0	0	0.58	0.90	1.12	1.24	1.32	1.41	1.45	1.49

The ratio between the consistency of index CI to judge matrix and average and random consistency index CI in the same order is the random consistency ratio $CR = \frac{CI}{RI}$. When CR is less than 10%, it is considered that judging matrix has satisfactory consistency, which indirectly reflects the consistency hierarchy of decision-makers, so that we think the conclusion resulting from AHP is reasonable. If it is not the same, we must redesign the questionnaires or readjust the judgment matrix resulting from the comparison of element importance in pairs.

The procedure by applying AHP to deal with system problems is simplified to the following analysis flow:

Figure 6 AHP analysis flow

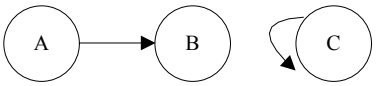


3.4.2 Fuzzy Network Process

The Analysis Network Process (ANP) was proposed by American scholar T. L. Satty in 1990s. Based on the analytical hierarchy process, it simplifies the complex problems to hierarchical structure in which elements are irrelevant with each other. Internal element of hierarchy does not influence or dominate each other, but actually in the evaluation system, all the evaluation indexes of each layer have complex interdependent relationship.

In view of this, the analysis network process arises at the historic moment, takes the network structure to indicate interdependence and feedback relations among evaluation indexes, and describe the interdependence and dominations among the evaluation indexes by constructing network analysis model, as shown in Figure 7. Among them, (a) indicates that A affects B or B is subject to A; (b) indicates that evaluation indexes in C are interdependent or not independent.

Figure 7 Graphic representation of network analysis model



(a) (b)

The analysis network process (ANP) can make up the defects of the analytic hierarchy process, taking into consideration that people's evaluation of the relative importance is subjective and not clear. However, standard 9-discrete scale cannot describe this, so we adopt triangular fuzzy number to indicate language variables, for describing the ambiguity and subjectivity during the process of comparing the two. Different triangular fuzzy number corresponds with different relative importance, specified in the following table 5.

Table 5 Language variables of relative importance corresponding to triangular fuzzy number

Triangular fuzzy number	The relative importance corresponding to triangular fuzzy number
(1/2, 1, 3/2)	Equally important.
(5/2, 3, 7/2)	The former is a little more important than the latter.
(9/2, 5, 11/2)	The former is apparently more important than the latter.
(13/2, 7, 15/2)	The former is intensively more important than the latter.
(17/2, 9, 19/2)	The former is extremely more important than the latter.
(3/2, 2, 5/2), (7/2, 4, 9/2), (11/2, 6, 13/2), (15/2, 8, 17/2)	Median of the adjacent judgment above
Reciprocal	If the importance rate of element (group) i and j is (l, m, u), the importance rate of element (group) j and i is (l, m, u) -1=(1/u, 1/m, 1/l)

To sum up, the decision theory of fuzzy analysis network process based upon the analysis network process and fuzzy comprehensive evaluation is the new system analysis process that organically combines traditional analysis network process and fuzzy comprehensive evaluation. Its basic idea is: (1) describe complementary judgment matrix given by experts in the form of triangular fuzzy number and form fuzzy complementary judgment matrixes; (2) according to the nature and calculation method of the triangular fuzzy number, calculate the importance of evaluation index, and construct the super matrix of the

analysis network process, and after calculation, finally determine the weight vector of evaluation index.

From the above introduction of fuzzy analysis network process, fuzzy analysis network process is an evaluation method combining qualitative and quantitative. Its main characteristics are:

(1) Connection. It overcomes the non-independent problems in the analytic hierarchy process, takes the network structure indicate interdependence and feedback relation among evaluation indexes, making the decision results closer to the actual.

(2) Fuzzy. Adopt triangular fuzzy number technology of fuzzy set theory, describing subjectivity and ambiguity in the process of comparing relative importance, which is more in line with the actual conditions of evaluation decision.

3.4.3 Comparison and Selection of Analysis Methods

The frequently used quantitative analysis methods are introduced above and their respective characteristics are as follows:

(1) AHP (analytic hierarchy process)

First proposed by American operational researcher T. L. Saaty, AHP is a structure method to deal with complex decision-making, as well as a typical combination of qualitative analysis and quantitative analysis.

(2) ANP (The Analysis Network Process)

Fuzzy analysis network process is an evaluation method integrating qualitative and quantitative. Its main characteristics are:

1) Connection. It overcomes the non-independent problems in the analytic hierarchy process, takes the network structure indicate mutual dependence and feedback relation among evaluation indexes, to make the decision results more equal to the actual.

2) Fuzzy. Adopt triangular fuzzy number technology of fuzzy set theory, describing subjectivity and ambiguity in the process of comparing relative importance, which is more in line with the actual conditions of evaluation decision.

Through comparison of complexity, operability and completeness of the evaluation index, the AHP is adopted in this thesis, which features clear structure, simple operation and integration of quantitative and qualitative analysis.

3.5 Summary of This Chapter

First, the methods used in this thesis are introduced. With the research philosophy of integrated quantitative and qualitative analysis, this thesis takes case study as the main research method and compares the alternative research methods. The questionnaire is used to collect data and its potential advantages and disadvantages are analyzed.

Second, this thesis introduces SWOT and Porter's Five Forces Model and PEST methods, with which the external macro environment and microenvironment as well as the enterprise's internal environment are fully understood, which provides basis for formulation of the enterprise strategy.

Finally, based on the analysis of current comprehensive evaluation methods, the AHP proposed by Saaty is used as quantitative analysis tool in this thesis, whose basic viewpoints and procedures are introduced.

Chapter 4: Analysis on Industry Environment for Internationalization Operation of Construction Companies and Strategic Positioning of CCCC

Based on the analysis of theories related to enterprise internationalization and research methods, it is necessary to clarify the industry environment of enterprise internationalization and its strategic positioning, providing basis for enterprise's market entry mode selection. In this sense, this chapter firstly introduces the industry environment of internationalization operation of giant state owned construction companies, and secondly, taking CCCC, a typical representative of the giant state owned construction companies, the author makes its strategic positioning for internationalization operation.

4.1 Analysis on Market Entry Mode of Internationalization Mode of Construction Companies

4.1.1 International Construction Market Analysis

With the development of economic globalization, the share of international project contracting market tends to expand continuously. According to the statistics of 225 largest contractors in international market in the world by American Engineering News Record (ENR), the turnover of international market in 2009 was RMB 383.8 billion, increased by 0.4% compared with 2008. The total value of international contracting in 2009 increased by 4.2% compared with 2008, and the growth rate of the new contract value reached 11.6%, as shown in Table 6. From the data in the table, it can be seen that although international contractors suffered from the continuous influence of financial crisis, the international engineering contracting market maintained a good growth momentum.

According to the profit and loss of the 225 largest international contractors, as Table 7 shows, the number of profitable companies of international market increased from 160 in 2008 to 166 in 2009; that of domestic market increased from 144 in 2008 to 150 in 2009. From either the domestic or the international market, the number of profit companies maintains the growth. The number of deficit companies of international contractors in

domestic market decreased from 26 in 2008 to 22 in 2009; that in international market decreased from 17 in 2008 to 13 in 2009. The average profit rate of international market decreased from 8.15% in 2008 to 7.8% in 2009, while the domestic market held the line. In general, the profitability and market competition of international contractors have improved.

Table 6 Turnover of 225 largest contractors in international market in 2009

Market	Domestic Market			International Market			Total		
Year	2008	2009	Growth Rate	2008	2009	Growth Rate	2008	2009	Growth Rate
Turnover ($ 100 million)	5749	6218	8.2	3900	3838	-1.6	9649	10056	4.2
New Contract Value ($100 million)	6645	7663	15.3	4721	4846	2.6	11366	12508	10.1

Data sources: ENR, Aug. 30, 2010

Table 7 Profit and loss of 225 largest contractors in international market in 2009

	Profit Companies (No.)		Deficit Companies (No.)		Average Profit Rate (%)	
	2008	2009	2008	2009	2008	2009
Domestic Market	144	150	26	22	7.50	7.5
International Market	160	166	17	13	8.15	7.8

Data sources: ENR, Aug.30, 2010

For the change of ranking of the world's top 20 international contractors, their rankings have changed a little, but the situation does not change a lot, which shows the competition situation of international construction market is relatively stable. The top one in 2010 was still German Hochtief AG, followed by French VINCI Group and Austrian Strabag SE as the second and third respectively. The rankings of the three companies did not change compared with 2009. American Bechtel Group surpassed Swedish Skanska A B to be the fourth from the fifth. French TECHNIP dropped by one. The rankings of Italian SAIPEM, German Bilfinger Berger AG (B+B Group), British Balfour Beatty PLC and Greek Consolidated Contractors Group (CCG) stayed the same compared with 2009. Other companies had slight adjustment in limited scope. It was remarkable that only CCCC became world's top 20 international contractors among Chinese construction enterprises and its ranking rose from 17 in 2009 to 13 in 2010, which showed the internationalization level of Chinese construction enterprises was

improving, shown in Table 8.

Table 8 World's top 20 of 225 largest international contractors in 2009

Ranking		Name of Company	Country	Turnover of International Market ($million)		Total turnover ($ 1 million)		New Contract Value ($million)
2010	2009			2009	2008	2009	2008	
1	1	Hochtief AG	Germany	23769.5	26181.8	26068.8	29284.4	30176.3
2	2	VINCI Company	France	17237.7	18489.3	45247.1	49901.0	37477.7
3	3	Strabag SE	Austria	15860.1	15946.1	18706.0	19101.4	13045.0
4	5	Bechtel	America	14849.0	13984.0	22637.0	21659.0	19312.0
5	6	Bouygues	France	13509.0	13567.0	34271.0	34405.0	33867.0
6	4	Skanska A B	Sweden	12880.0	15050.1	16322.0	20283.9	16827.9
7	7	SAIPEM	Italy	10884.7	11665.0	11710.1	12204.0	12209.6
8	8	Bilfinger Berger AG B+B Group	Germany	9861.4	10757.0	14503.1	15802.0	15514.8
9	11	Fluor Corp	America	9629.4	9140.7	17235.8	17300.0	18500.0
10	9	TECHNIP	France	8865.0	10701.0	8995.0	11002.0	9998.0
11	12	FCC	Spain	7847.0	8530.8	17713.4	20561.9	26165.3
12	13	Kellogg Brown & Root	America	7824.6	7972.0	9949.8	10519.5	12961.4
13	17	China Communications Construction Group	China	7477.8	5858.8	33462.5	25965.9	56611.3
14	10	Bovis Lend Lease	Australia	6787.8	9241.9	8677.2	11255.3	6093.3
15	18	CNO	Brazil	6549.0	5527.0	9405.0	7242.0	11637.0
16	16	Balfour Beatty PLC Company	England	6461.0	6042.0	15109.0	15207.0	14597.0
17	15	Royal BAM GROEP Company	Netherlands	6176.0	7144.0	11335.0	12988.0	NA
18	20	Grupo ACS	Spain	5863.5	5099.2	22496.3	24015.6	24997.2
19	19	Consolidated Contractors Group, CCG	Greece	5739.1	5466.1	5739.1	5466.1	5725.6
20	21	Foster Wheeler Company	America	4401.6	4607.0	5056.3	5508.0	3481.7

Data sources: ENR, Aug.30, 2010

In terms of the enterprise scale and structure of international market, the total market turnover of top 20 international contractors in 2009 was $ 202.475 billion, accounting for 52.76% of the total market share of 225 contractors. It showed that the market concentration rate of international contracting was very high and that Europe and America dominated international market in terms of the total turnover.

Judging from the industry market, as Table 4-4 shows, among the turnover of 225 largest international contractors, housing construction market occupied a large share that decreased from 24.1% in 2008 to 22.4% in 2009. Following it was petrochemical market. Its market share was 23.3% and 23.8% respectively in 2008 and 2009. The market share of transport industry increased from 26.7% in 2008 to 29.3% in 2009. In general, the distributions of industry market of 225 international contractors did not change a lot, just small adjustment of different years within the industry. Thus, the overall industry distribution was very stable, to some extent, reflecting the stability of the structure of the world's economy.

Table 9 Analysis on industry market of 225 largest contractors in international market in 2009

Special Market	Turnover and market share in 2008		Turnover and Share in 2009	
	Turnover ($ 100 million)	Market share (%)	Turnover ($ 100 million)	Market share (%)
Housing Construction	94067.6	24.1	85988.3	22.4
Manufacturing	6916.9	1.8	3805.6	1.0
Industry	23001.3	5.9	20601.5	5.4
Petrochemical	90837.8	23.3	91421.5	23.8
Water Conservancy	14234.2	3.6	11221.8	2.9
Draining	5813.9	1.5	6289.7	1.6
Transport	104092.2	26.7	112342.0	29.3
Hazardous wastes	549.2	0.1	486.0	0.1
Electric Power	26723.5	6.9	35694.4	9.3
Telecommunication	3937.3	1.0	2685.8	0.7
Others	19833.7	5.1	13244.9	3.5

Data sources: ENR, Aug.30, 2010

4.1.2 Analysis on International Market of Chinese Contractors

4.1.2.1 Overview of International Market of Chinese Contractors

From the overall situation of Chinese contractors in international market, its market share and participation tend to increase. There were 54 Chinese contractors got into world's

top 100 in 2009, 4 more compared with 50 in 2008. Only China Communications Construction Group Ltd. (CCCG) got into top 20. There were 17 Chinese contractors getting into top 100, which increased by 1 compared with 2007. The total turnover of international market of 50 Chinese contractors who got into 225 largest international contractors was $ 50.5733 billion, increased by $ 7.3708 billion compared with 2008, shown in Table 10.

Table 10 Chinese contractors ranking top 100 of 225 largest international contractors in 2009

Name of Company	Ranking in 2010	Ranking in 2009	International Market ($ 1 million)		Growth Rate (%)	Total in 2009 ($1 million)	New Contract Value ($ 1 million)	
			2009	2008			2009	2008
China Communications Construction Group (Ltd.)	13	17	7477.8	5858.8	27.6	33462.5	56611.3	40707.0
China State Construction Engineering Corporation	22	25	4185.0	3523.2	18.8	33196.3	67268.9	57104.1
China Railway Construction Corporation Limited	25	51	3542.0	1957.1	81.0	53990.0	82701.0	54111.0
China National Machinery Industry Corporation	26	28	3422.3	3080.7	11.1	4606.8	8873.5	3857.9
China Metallurgical Group Corporation	31	61	2965.0	1372.6	116.0	25531.7	31561.8	30973.1
CITIC Construction Co., Ltd.	32	59	2941.5	1620.8	81.5	2966.2	2146.0	NA
Sinohydro Corporation	41	56	2232.2	1804.1	23.7	11062.7	13707.1	14141.2
China Petroleum Engineering Construction (Group) Corp.	46	100	2092.9	668.0	213.3	3280.2	3948.0	4850.8
China Railway Group Limited	53	62	1781.4	1337.8	33.2	52869.7	88111.3	62731.2
Sinopec Engineering Incorporation	69	94	1279.8	713.6	79.3	2114.8	3972.2	2493.9
China Petroleum Pipeline Bureau	76	120	1052.8	452.5	132.7	2825.2	1433.2	3096.4
Shanghai Electric Group	78	83	1042.0	879.8	18.4	11510.0	4670.0	3431.7
Shandong No.3 Electric Power Construction Company	79	95	1013.0	710.0	42.3	1171.0	2962.0	1774.6
Dongfang Electric Corporation Limited	80	80	1011.0	901.6	12.1	5486.1	8823.5	11142.1
China Gezhouba Group	84	99	932.5	671.1	39.0	4071.1	7918.0	4233.6
China Civil Engineering Construction Company	86	72	911.2	1082.5	-15.8	1121.0	5611.8	3087.7
Shanghai Construction Group Co., Ltd.	89	103	840.5	646.2	30.1	11037.9	11270.6	10024.1

Data sources: ENR, Aug.30, 2010

4.1.2.2 Analysis on structure of international market of Chinese contractors

Judging from the distribution of regional markets, it can be seen that Chinese international business markets are mainly distributed in Asia and Africa. The total share of the two regions was 61.5%, in which, the market share of Africa decreased from 42.24% in 2008 to 36.6% in 2009 and that of Asia increased from 20.2% in 2008 to 24.9% in 2009. The market share of the Middle East accounted for 10.8%. They held relatively small market share in developed countries of Europe and America; for example, the market share in Europe, America and Canada was 1.6%, 0.5% and 0.4% respectively in 2009, as Table 11 shows. From the above data, it can be seen that Chinese contractors are very competitive and have high market shares in Asia and Africa markets. However, the situation in Europe and America was barely satisfactory. Their acceptance of skills and managements of Chinese enterprises is still low and the trade barrier is high, so it is hard to get access to Europe and America markets.

Table 11 Regional market distribution of Chinese international contractors in 2007-2009

Country/Region	Year	Region market share (%)					
		Asia	Europe	Africa	Middle East	America	Canada
China	2009	24.9	1.6	36.6	10.8	0.5	0.4
	2008	20.0	1.3	42.4	6.5	0.8	0.1
	2007	16.6	1.0	26.9	5.5	1.1	0.5

Data sources: ENR, Aug.30, 2008, 2009, 2010.

4.1.3 SWOT Analysis on Internationalization Management of Construction Enterprises

Construction Enterprises in China are faced with a series of external and internal factors. To analyze these factors is the important premise and foundation for the internationalization strategy selection of construction enterprises. SWOT analysis tool is a kind of objectively accurate method initially proposed by a professor of management at University of San Francisco in the US to study the current status of an enterprise. SWOT is the abbreviation of Strength, Weakness, Opportunity and Threat, among which, strength and weakness are internal factors of an enterprise while opportunity and threat are external factors. Various alternatives of internationalization strategy can be produced through analysis and combination of the said four conditions.

4.1.3.1 Strengths of construction enterprises in internationalization management

S1 Cost strength

Construction enterprise is part of labor-intensive industry. Work procedure of

construction demands a mass of labor force, while Chinese enterprises often participate in international project bidding by way of subcontracting construction in the initial phase. Compared with developed countries such as the UK and the USA, China enjoys a competitive edge of price both in technical works and ordinary works as a result of a good deal of cheap labor. During the process of urbanization, vast quantities of rural labor force flow into cities continually, increasing labor supply of the whole construction market, reducing market price of labor, and providing abundant cheap human resources to construction enterprises in China for internationalization.

S2. Strength in equipment and raw materials

During the bidding of main contracting of an international project, cost of purchasing equipment and raw material directly influences the amount of comparative advantage of an enterprise. While China is growing into a world-manufacturing centre day by day, engineering machine manufacturing enterprises represented by XCMG and Sany are gaining leading advantages of technology and cost in the industry. Construction enterprises may strengthen their competitive edge by integrating procedures such as the purchase of value chain. Meanwhile, international project contracting can drive the export of raw building material of China. Moreover, complete range of raw material supply of super quality and competitive price in China provides a good material base to Chinese construction enterprises for international project contracting and these enterprises can move forward to achieve optimum distribution of resources around the world.

S3. Capacious market in developing regions like Asia and Africa

As far as the level of economic development is concerned, both Asia and Africa are economically developing regions. Due to close geographic location, other Asian countries and China share similarities in culture conventions and life styles, as well as relatively small psychological distance in favor of our construction enterprises to open up Asian market. For a long time, because of historical and realistic reasons, China has lots of economic cooperation with Africa countries. Chinese construction enterprises have entered into African market for a long time and gradually obtained acceptance and good reputation in host countries because of respect to local culture and reliable project quality. All these factors provide a firm foundation to construction enterprises to further expand their advantages in African market.

S4. Certain project experience and substantial support of the government

Chinese enterprises set out to participate in international project construction step by step early in the 1970s, especially after the reform and opening up policy. Chinese enterprises have

accelerated speed to go global, accumulated certain project experience in international construction market and grown into a very important force in international construction market, which becomes an important foundation of internationalization for construction enterprises. Meanwhile, the government of China launches the "going global" strategy and points out that investment in foreign countries, project contracting and labor service cooperation are good forms of implementing the "going global" strategy. Furthermore, the government encourages construction enterprises and cultivates them with internationalization management, and issues a series of policies to support construction enterprises to participate in international market competition.

4.1.3.2 Weaknesses of construction enterprises in internationalization management

W1. Low enterprise management level

Compared with developed countries in Europe and America, Chinese enterprises have the following characteristics due to the constraint of the traditional systems: high management cost, low management level, complex organization structure design, slow internal information communication, information deficiency, rigescent management system and the failure of resource allocation optimization. Under new competition trend, however, span and range of management required by international construction industry has increased, which poses many obstacles for Chinese construction enterprises to realize main contracting of projects and many disadvantages compared with large international contractors.

W2. Core talents shortage

Competition among construction enterprises is the competition of talents in nature, which is also a greatest shortcoming of constructions enterprises in China compared with large international project contractors. Generally, construction enterprises in China are mainly in bad need of talents in the following aspects: experienced international project manager and core administrative staff, accounting and legal staff for international projects, project risk assessing staff, cost estimating and bidding staff as well as financing staff for international projects in design, purchasing, and construction procedures. These core administrative staff is positioned among every value added procedure of a project, which supports the value system of a whole project, and they are important human resource guarantee that maintain continuous competitive edge of an enterprise to participate in international competition.

W3. lack of ability to cope with the new trend of international project contracting

With the development of economic globalization, great changes have taken place in international project contracting field. Buyers require one-stop and integrative engineering

services provided by builders and new contract modes spring up one after another, for instance a series of turnkey projects like EPC, PMC (Project Management Contracting), and contracting with capital modes like BOT, PPP (Public-Private Partnership) have becoming principal modes adopted by large international projects. Although Chinese construction enterprises have accumulated many experiences in years of international projects participation, most of their experiences concentrates upon subcontracting of engineering construction fields while few involves procedures with high value added such as project design, consultation and procurement. Profits of projects obtained by enterprises are diluted little by little because of fierce competition. Aforementioned factors together with obviously inadequate experience in main contracting of projects are major bottlenecks Chinese construction enterprises have to break through to cope with new trends.

W4. high asset-liability ratio and weak financing capability

Asset-liability ratio of large state owned enterprises is relatively high in general, and the risk of internationalization management is also high. It specially applies to large construction enterprises whose asset-liability ratio once exceeds 75%, their weak debt payment ability will hinder them from long-term development and management. Concurrently, due to relatively small asset size and high asset-liability ratio, financing capacity of those enterprises are restricted, too. The support of export credit and insurance given by government credit system to construction enterprises is insufficient. Simplex financing channel impair their competitiveness in main contracting of large international projects, because most international projects today are in the form of contracting with capital while enterprises in China mainly rely on export buyer's credit to participate in international competition. These increase asset-liability ratio of enterprises and enterprises have to undertake risks of repaying capital and interest, and interest rate. Therefore, operational risks of enterprises are increased.

4.1.3.3 Opportunities of construction enterprises in internationalization management

O1. Gradual expansion of the international construction market share

With the development of economic globalization, the international construction market share is expanding gradually. The developing countries and regions in Asia and Africa in particular have great demand for public infrastructure, which boosts up the process that the Chinese construction enterprises partake in the international project construction. In terms of the geographic location and history, Chinese construction enterprises have obvious advantages.

O2. Enhanced level of opening up in international construction market

With the acceleration of global economic integration, the opening level of the construction market has improved obviously in every country. Production factors such as technology, capital and labor are transferred freely in the world. Particularly, after the signing of "the Agreement on Government Procurement" under the framework of WTO, project contracting market in every contracting signatory has become more open. The enhanced opening level of the international project contracting market provides Chinese enterprises with huge market opportunities to participate in the international competition.

O3. Constantly expanded investment scale of China in foreign countries

With the implementation of "go global" strategy, the overseas investment scale of Chinese enterprises expands constantly, especially in the raw material fields such as petroleum and iron mine, and an abundant demand for construction projects is generated in the process. The first target is Chinese enterprises with closer psychological distance. Through the strategic alliance among enterprise, the experience of the international project and local influences will be increased, and a solid foundation for the further development of enterprises will be laid.

O4. Increased opportunities and diversity of international cooperation

Following foreign construction enterprises coming in and domestic enterprises going abroad, the exchange and cooperation among enterprises have increased gradually. By building a united project management department to bid for the general contractor of the international project, and further subcontracting is carried out among enterprises, these innovative ways of cooperation provide Chinese construction enterprises with opportunities of learning advanced management, technology and financing capability and experiences, which strengthen the internal strength of enterprises.

4.1.3.4 Threats of construction enterprises in internationalization management

T1. Fierce market competition and increasing non-trade barriers

Foreign large project contractors achieve high efficiency and low cost by modern management mode and technical means in the international construction market and allocate resources at a global scale, so they have very strong competitive advantages, leading Chinese enterprises to fierce competition. In the process of competitive bidding in the international market, the frequent cutthroat competition among Chinese enterprises results in the decrease of the profit. As a result of the influence of the trade liberalization and WTO Rules, the trade barriers among countries have been greatly reduced, but in order to protect manufacturing industry, every nation sets up non-trade barriers constantly and raises the access threshold of

enterprises, increasing the difficulties for international management of enterprises.

T2. New challenges facing Chinese construction enterprises

Modern construction industry is transferring from labor-intensive industry to management intensive industry, technology intensive industry, capital intensive industry, which is an irresistible development trend of the construction industry. Compared with the famous contractors in the world, Chinese enterprises have great difference in this respect. Besides, owners tend to ask for package service or one-stop service provided by contractors from design to consultation, purchasing, construction, management, operation and post-sale service. The emerging and prevalence of contracting ways such as EPC, PMC, BOT, and PPP require that enterprises have not only good construction capacity, but also powerful operating capabilities and financing capacity, which has high requirements for the comprehensive quality of the enterprises in China, where the Chinese enterprises need to improve.

T3. Loss of excellent talents

With the accumulation of practical experience in international construction projects, Chinese construction enterprises cultivate a group of project management talents with international vision and localization advantage. These talents play an irreplaceable role in the process of the international management. Due to the scarcity of these people and the favorable wages and benefits and excellent career prospects provided by foreign enterprises, the loss of talents is bigger, Chinese construction enterprises face a great loss of talents, which even affecting the normal operation of enterprise projects, thus the risk facing enterprises in international management is greatly increased.

T4. SWOT analysis matrix for international management of Chinese enterprises in construction industry

The opportunities, threats, strengths and weaknesses facing Chinese enterprises in construction industry in the process of international management have been introduced. These factors are general ones, which make up the SWOT matrix that we adopt for analysis, shown in Table 12.

Table 12 SWOT analysis matrix for international management of Chinese construction enterprises

	Strengths (S1,S2,S3,S4)	Weaknesses (W1,W2,W3,W4)
Opportunities (O1,O2,O3,O4)	S/O strategy Maxi-Maxi	O/W strategy Maxi-Mini
Threats (T1,T2,T3,T4)	T/S strategy Mini-Maxi	T/W strategy Mini-Mini

As an analysis tool, SWOT matrix is only a general analytical framework since every enterprise has its unique strengths and weaknesses as well as different positioning and market power in the construction industry, which comprises the diversity and uniqueness among enterprises. Therefore, enterprises shall fully take its characteristics into account while making its internationalization strategy, and also abide by the following four basic strategic principles:

(1) Utilize strengths of the enterprise and the market opportunities provided by the external environment. (S/O strategy Maxi-Maxi)

(2) Use every market opportunity and evade weaknesses of the enterprise. (O/W strategy Maxi-Mini)

(3) Make use of strengths of the enterprise and cope with external threats positively. (T/S strategy Mini-Maxi)

(4) Overcome the internal weaknesses of the enterprise and cope with external threats positively. (T/W strategy Mini-Mini)

All of these general and specific analyses will be the starting point and basis for follow-up strategies formulation of construction enterprises.

4.1.4 Strategy Selection for Internationalization of Construction Enterprises

The construction enterprises must have a specific analysis and clear knowledge on internal and external environment prior to selection for internationalization strategy. The external environment of enterprise is divided into external macro-environment and industry environment. Macro-environment mainly includes government policy of enterprise's country, economic development level, local culture and customs. In general, analysis on external macro-environment adopts PEST analysis method; namely, analyze the external environment of enterprise from four aspects: politics (law), economy, society and technology.

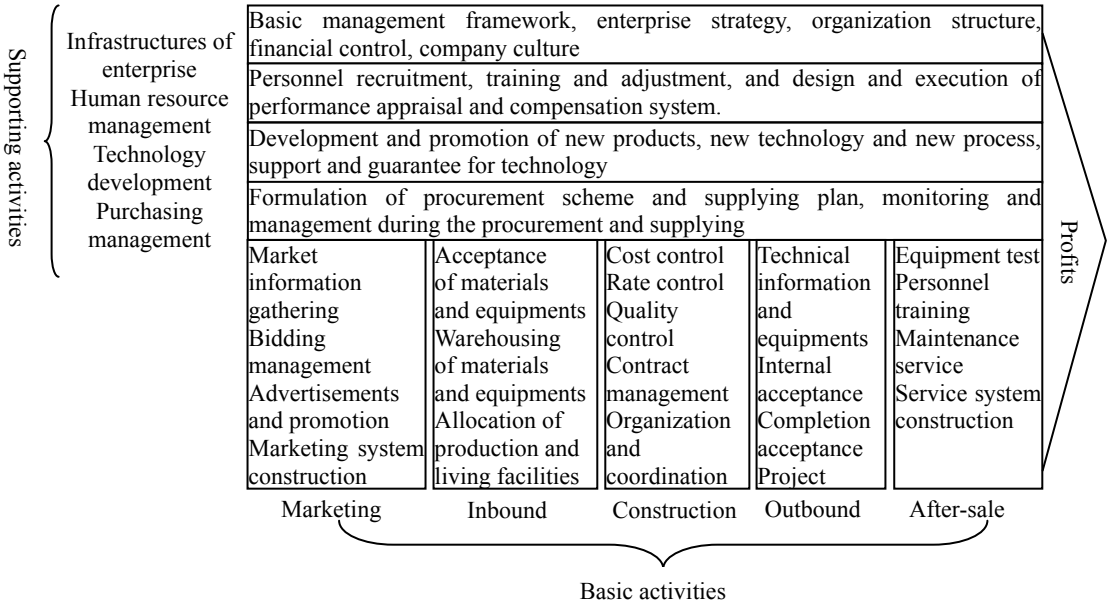
Macro-environment mainly means overall environment of enterprises. Enterprise's industry environment closely related to the enterprise itself mainly includes some elements for constituting the industry, which affects operation of the enterprise. It mainly focuses on market structure and competition intensity of the whole industry as well as enterprise's position in the industry. Analysis on the industry environment mainly adopts Michael Porter's "Five Forces Model" in which the "Five Forces" respectively refer to threat of entrants, bargaining power of suppliers, bargaining power of buyers, threat of potential substitutes and competition among existing competitors in the market.

Above are external environment needed to be considered for strategy selection for internationalization of enterprises, which shows general factors and mainly provides market opportunities and threats. Enterprises, however, should further consider their own factors in order to formulate specific internationalization strategy, namely, strengths and weaknesses of enterprise. Analysis on internal environment of enterprises generally starts with value chain analysis.

Concept of enterprise value chain was raised by Professor Michael Porter. He indicates that enterprise's value activities are mainly divided into basic activities and supporting activities. Basic activities mainly mean enterprise's production and operation activities from input to output related to production, sales and after-sale service of enterprise's products and are main part of enterprise's activities. Supporting activities are kind of value activities that perform supporting action on the basic activities and mainly include several aspects such as technological development, factor inputs, and human resource management. All activities tie up and cooperate with each other to complete whole growth process of enterprise's value.

In consideration of business process of construction enterprises in China, Shang Yaohua and Jin Weixing (2005) provide internal value chain model of enterprises below according to basic principle of value chain theory. See figure 8.

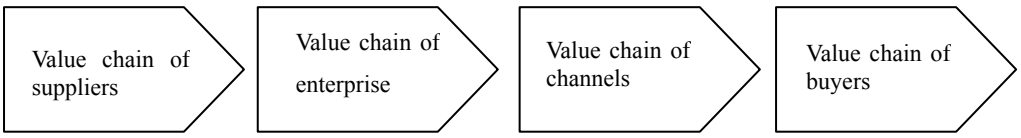
Figure 8 Internal value chain model of construction enterprises



It is observed that the value chain of construction enterprise is not a closed system which constitutes external value chain model of enterprise together with value chain of upstream

suppliers and that of downstream buyers. The value increment of enterprise's products and services is not only up to the enterprise's own factors, but also limited to effective coupling with external value chain of the enterprise. See figure 9.

Figure 9 External value chain model of enterprises



Industry value chain opposite to internal value chain of enterprises can also be called industrial chain, which means relationship of labor division and cooperation formed during provision of final products made by enterprises to customers due to different functions of creating values assumed by different enterprises in the industry. Internal value chain of enterprise mainly means each component part of value creation of enterprise, while the industrial chain mainly means the enterprises in the industry have different industry division and position and focuses on market structure and form of industry. Shang Yaohua and Jin Weixing (2005) provide value chain model of construction industry via analysis on construction industry.

They indicate that the value activities of construction industry are mainly composed of six links, which are investment planning, access to land, plan design, building construction, project sales and property management. Each link contains several value activities. As long as each value activity succeeds, the whole industry can fulfill the process of value growth. [5]

According to analysis on internal value chain and industry value chain of construction enterprises, we identify the strengths and weaknesses of enterprise itself and relations of enterprises on labor division and cooperation in industry and lay a solid foundation for further formulation of internationalization strategy of construction enterprises. In general, development strategies are mainly divided into the following categories:

(1) Single business strategy

Single business strategy means the enterprise concentrates all the resources on certain link of engineering project contracting. For example, professional project design and consulting enterprise, engineering construction enterprise and China's construction enterprises

[5] Research on *Strategy of Construction Enterprises of China—Based on Value Chain Analysis*, Shang Yaohua, Jin Weixing (2005)

mainly act as construction contractors involved in the early selection for internationalization strategy. It helps them to centralize the resources and strengthen their competitive advantages and monopoly position in this field. However, single-oriented operation has higher risk due to the centralization of resources, especially engineering construction links are more competitive, while profits and returns are at lower level, and imitation and substitutability are relatively high. In the event of fall of demands for international construction market, the operation conditions of enterprise could be seriously affected.

(2) Concentric diversification strategy

Concentric multiplication strategy means construction enterprises add products and services similar to original ones and can make use of their original technology, experience and knowledge, organizational structure, job placement and distribution channel to focus their business expansion on core business. For example, enterprises engaged in civil engineering are involved in installation and decoration business, while enterprises engaged in foundation construction in main construction. It helps them to optimize the resources allocation and reduce the risk of business operation.

(3) Vertical integration strategy

Vertical integration strategy means expansion to upstream and downstream of industrial chain for extending enterprise's operation field and scope. It is divided into forward integration strategy and backward integration strategy.

a. Forward integration strategy means expansion to downstream of industrial chain, for example, construction enterprises enter the field of real estate development. Through control on sales and distribution channel, they can increase added value of their products and services so as to increase the rate of returns.

b. Backward integration strategy means expansion to upstream of industrial chain, for example, enterprises produce required raw materials and other primary inputs itself. Through control on upstream of industrial chain, the enterprises can guarantee the quality of primary inputs such as raw materials and reduce enterprises' production and operation costs to optimize enterprises' overall value system.

(4) Complex diversification strategy

Complex diversification strategy means enterprises are involved in activities that have no connection with original business, for example, construction enterprises go into food and beverage service. There is no economy of scale and synergy between these industries. Moreover, it will lead to reduction of inputs of each industry and will reduce the enterprises'

competitive force in this industry.

In view of international construction market, construction contracting mode is having its transition from engineering project contracting to comprehensive value chain system. The comprehensive value chain system includes not only value chain of enterprises' suppliers and buyers, but also vast external value chains such as customers' customers and financing party. It brings all stakeholders together into a larger analysis framework and produces greater systemic value via optimization and relation of external value chain.

For China's construction enterprises, they are in long-term position of suppliers of primary products of engineering construction and at valley bottom of "Smiling Curve" with quite low rate of returns, and are seldom involved in links of higher value added. Therefore, construction enterprises in China should adopt vertical integration strategy. Through extending their value chains, the enterprises can turn into contractors providing total solution of comprehensive integration service from the contractors of single segment.

4.1.5 Entry Mode Selection for International Strategy of Construction Enterprises

4.1.5.1 Conception and classification of the market entry modes for construction enterprise

The selection of enterprise's entry mode for overseas market, which is regarded as a kind of systematic arrangement by scholars, is the focused field of current internationalization research of enterprises. It is actually a kind of institutional arrangement with which enterprises transfer what they possess, such as technology, capital, managerial experience and knowledge, to target market in different ways (equity and non-equity) and carry out the multinational business activities in target market. This definition is aiming at manufacturing and service industry instead of construction industry, which has its own unique features. Based on the analysis of construction industry, some scholars put forward a definition of the selection of entry mode of construction industry market. It was prescribed as follows: the selection of entry mode of construction industry market refers to a kind of institutional arrangement with which construction enterprises transfer what they possess, such as technology, fund, equipment, manpower and managerial experience, to the target market and carry out the international project contracting businesses.

The market mode of enterprise can be divided into three categories: export entry mode, contractual entry mode and investment entry mode.

(1) Export entry mode, which can be divided into two categories: direct export and

indirect export, means a kind of market entry mode that enterprises sell products in the target market while making products in countries and regions outside of the target market.

(2) Contractual entry mode is a pattern with which the enterprises possessing technology, brand, reputation and handicraft sign a contract with enterprises in the target market to transfer its tangible or intangible resources to the target market without the involvement of stock equity and property right. It generally includes several forms, namely, franchise, licensing, contract, turnkey project, technical agreement and so on.

(3) Investment entry mode is an entry behavior of market based on stock equity or property right, in which the investor possesses partial or entire power and control power and thus transnational enterprises take shape. Its concrete forms consist of joint venture and individual proprietorship that was divided into greenfield investment and merger. Among these three market entry modes, investment entry mode is best funded and most risky while it has the highest control over the investment enterprises and the strongest penetration on market.

The products provided by international project contractor are characterized by disposability, gradualness and field operation resulting in inapplicability of entry modes of trade. The entry modes of international construction enterprises have both the permanent industry attributes and unique features. Xu Weili and Du Bo (2010) have put forward the classifications of market entry modes of international construction enterprises, as shown in Figure 10.

4.1.5.2 Analysis on the internal attribute of international market entry modes

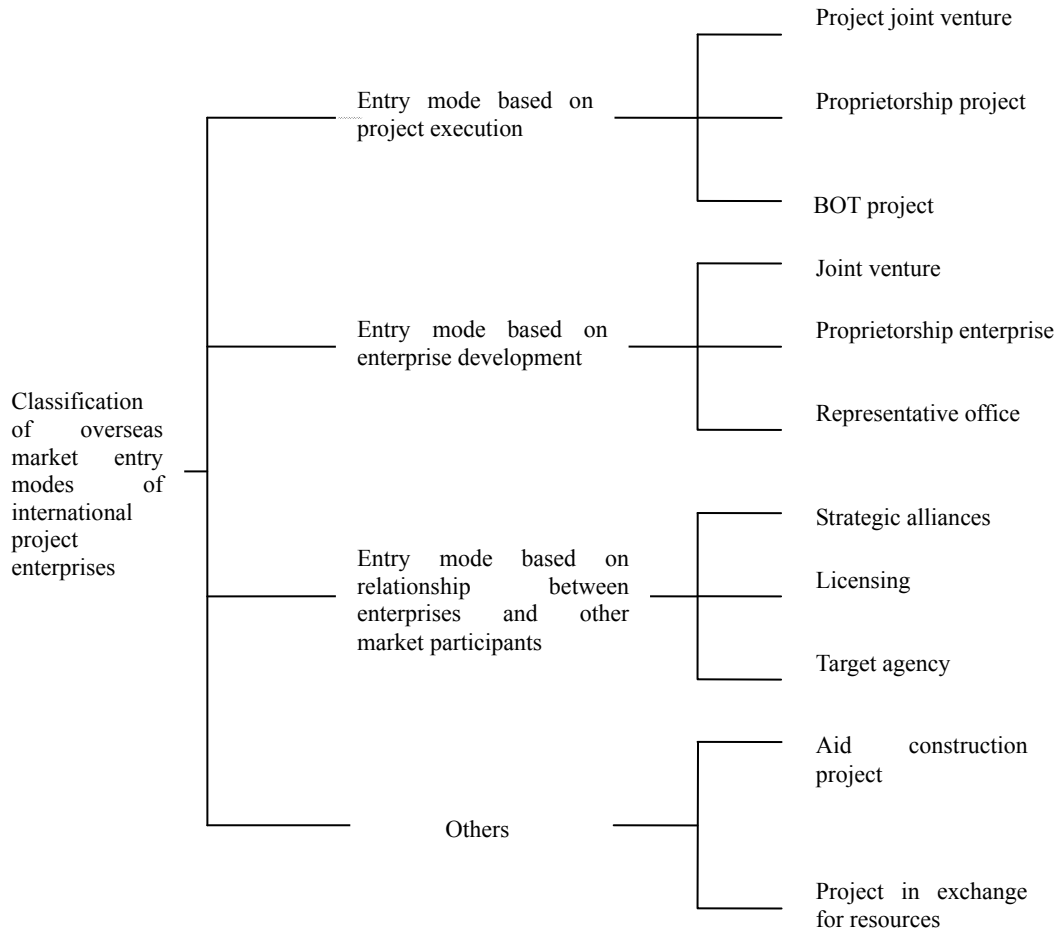
There are many factors influencing the selection of the entry modes of international market, which can fall into four categories: factor of the capabilities of enterprises, internal feature of the entry modes, factor of the target market and factor of external environment. As internal feature of the entry modes is the inherent feature of the entry modes, it will not change with the changing external environment. Different market entry modes have different internal attributes. The internal attributes consist of four aspects:

(1) Resource commitment

Resource commitment means the amount of resources that an enterprise needs to invest when it enters the target market. Different market entry modes correspond to different resources investment levels. Due to the specificity of enterprise property, all invested resources will become sunk cost of the enterprise. What's more, the resources investment levels of export entry mode, contractual entry mode and investment entry mode will improve

gradually.

Figure 10 Classification of overseas market entry modes of international project enterprises



(2) Control level

Control level is the capability of enterprises to control the resources for international projects and to manage the enterprise and make the strategic policies. The higher the control level is, the higher the extent of internal business of an enterprise is. When the spillover risk drops, it is much easier to carry out the strategic thinking and goals. However, the enhancement of the control level, which includes export entry, contractual entry and investment entry, and some concrete investment forms such as the minority share holding, reciprocal share holding, majority share holding, absolute share holding of the investment entry, signifies the increase of commitment of enterprise resources.

(3) Risk communication level

Risk communication level is the risk in which an enterprise is exposed in the process of

choosing entry modes of international market. These risks include technological spillover risk, the uncertainty of economical and political environment of the target market and so forth. In export entry mode, contractual entry mode and investment entry mode, the risk communication level of joint venture in contract entry mode and investment entry mode is the highest, especially the contract agreement, franchise and licensing, which are facing great risk of default and technology spillover.

(4) Flexibility level

Flexibility level reflects the difficulty level of adjusting managerial strategy of enterprise when international managerial environment changes. When an enterprise enters a target market and invests a mass of resources, it is difficult to exit from the target market without any losses due to the increasing obstacle of quitting and the contraction of strategic flexibility.

The internal features of the above-mentioned four enterprise entry modes are mutually balanced. Higher control level means more resource commitment, greater risk exposure and less strategic flexibility. Therefore, an enterprise should choose the suitable market entry mode based on the enterprise's own conditions and external environment when it starts to choose market entry mode.

4.1.5.3 Analysis on factors affecting the international market entry mode selection of construction enterprises

The inner attribute of entry model is the primary content for the international construction enterprises to conduct the entry model selection of international market; secondly, we shall also analyze other factors affecting the entry mode selection of market for construction enterprise, and those factors are classified as three analysis dimensions (subjective, objective and environment).

(1) Factor of enterprise' capacity

The enterprise's capacity belongs to the inner factor of enterprise, and it refers to the conditions and natural endowment owned by the enterprise, and it includes the enterprise scale, international experience, technical capacity and strategic demand.

1) Enterprise scale

The enterprise scale is one of the important representations of enterprise resource capacity in terms of international engineering, and it comprehensively reflects the capital strength, management level and technical capacity of enterprise. It can be seen from the practical experience in the international engineering market that it has an extremely high industrial concentration, and 20 biggest international contractors have occupied above 50% of

business share in international market. The enterprises with different scales also have different preference for entry mode; through sampling analysis, K. F. Winsted finds that the bigger the enterprise scale is, the higher the preference of selecting the long-term investment entry mode with high resource guarantee and high control is.

2) International experience of enterprise

It is found via research that the engineering enterprises with little international experience are inclined to select the contractual entry mode to avoid a large quantity of market operation risk. With the increase of international engineering experience and project management experience of enterprise, the enterprise will have higher and higher preference to the market entry mode with high resource guarantee and high control.

3) Technical capacity of enterprise

Generally, the scholars think that the technical capacity of enterprise affects the entry mode selection of market generally via two dimensions (technical knowledge and knowledge implication). The higher the exclusive degree of enterprise technology is and the more obvious the comparable advantage is, the higher the enterprise has preference to adopting the market entry mode with high control to avoid the spillover risk and enhance the competitive advantages. The higher the implication of enterprise knowledge is, the higher the possibility that the enterprise adopts the internal transfer to make its value maximized is, so as to realize a long-term operation and control in the target country.

4) Strategic demand of enterprise

The international engineering enterprise conducts the optimized configuration of resource in the global market to maximize the global value rather than take the maximized value in one market as basis, which determines that the selection of engineering enterprise in market entry mode must consider its relevance and coordinative effect among all markets in the world.

(2) Factor of market in target country

The market factors in target country include the market scale and growth, market competition situation, market entry barrier and production elements of target country.

1) Market scale and growth

The market scale and growth reflects the total economic strength and growth trend of target country. When the international engineering has a big market scale and growth room, the construction enterprise can adopt an investment entry mode to be included in the local market as quickly as possible so as to occupy the market share, implement the localized

operation, realize the economic scale effect and reduce the total cost of enterprise. When the international engineering has a small market scale, saturated or even lagging growth, if the enterprise enters the overseas engineering market, it will be faced with big competitive strength, large operational risk and low profit return rate, and it will generally adopt the market entry mode with small resource input and short period.

2) Situation of market competition

The situation of market competition reflects the industrial structure and competitive strength of the market in target country. As for the market almost under complete competitive state, the enterprise is inclined to adopt the non stock equity entry mode such as contract; however, as for the market almost under monopoly, the enterprise is inclined to adopt the investment entry mode.

3) Market entry barrier

If the market has a high entry barrier, the international engineering enterprise will keep a cautious attitude for the market entry mode with resource guarantee and high degree of control. However, once the enterprise breaks through those barriers, which will become the entry protective screen of enterprise.

4) Situation of productive elements

The construction of international projects requires a large quantity of human power and material resource; furthermore, the elements required are highly localized; therefore, the local element conditions determine whether the enterprise can reduce the production and operation cost and realize an efficient resource allocation. If the production elements are cheap and sufficient, the enterprise generally adopts a long-term entry mode; otherwise, if the production element is deficient and expensive, the enterprise will be inclined to select a short-term contractual entry mode.

(3) External environment factor

The external environment factor includes the market scale and investment environment in the host country, political, economic and legal investment environment in target country, and the mutual cultural and economic linkage between the host country and target country; in the previous chapters, we have given a detailed description, and no more details will be discussed.

4.2 Strategic Positioning for Internationalization Management of CCCC

4.2.1 Organizational Structure of CCCC

4.2.1.1 Brief analysis on CCCC

China Communications Construction Company Ltd. (hereinafter referred to as CCCC) was established on October 8, 2006. As a limited liability company, it was approved by the State Council, reorganized and exclusively launched and established by China Communications Construction Group Co., Ltd. (hereinafter referred to as CCCG).

As the sole initiator of CCCC, the CCCC was formed via combination of original China Harbor Engineering Company Ltd. (Group) and original China Road and Bridge (Group) Corporation on December 8, 2005. In order to complete the internal integration between enterprises, with the support of the State owned Assets Supervision and Administration Commission (hereinafter referred to as SASAC), those two companies integrated more than 609 enterprises, conducted the stock equity restructuring of 327 companies, logged off 96 enterprises and standardized property right of more than 80 enterprises within less than 9 months. Finally, it had 535 incorporated companies and 54 branches included in the listed range. Through win-win partnership, CCCC complemented each other's advantages and realized the combination in land and water industries so as to form a more complete industrial chain in traffic and infrastructure construction field.

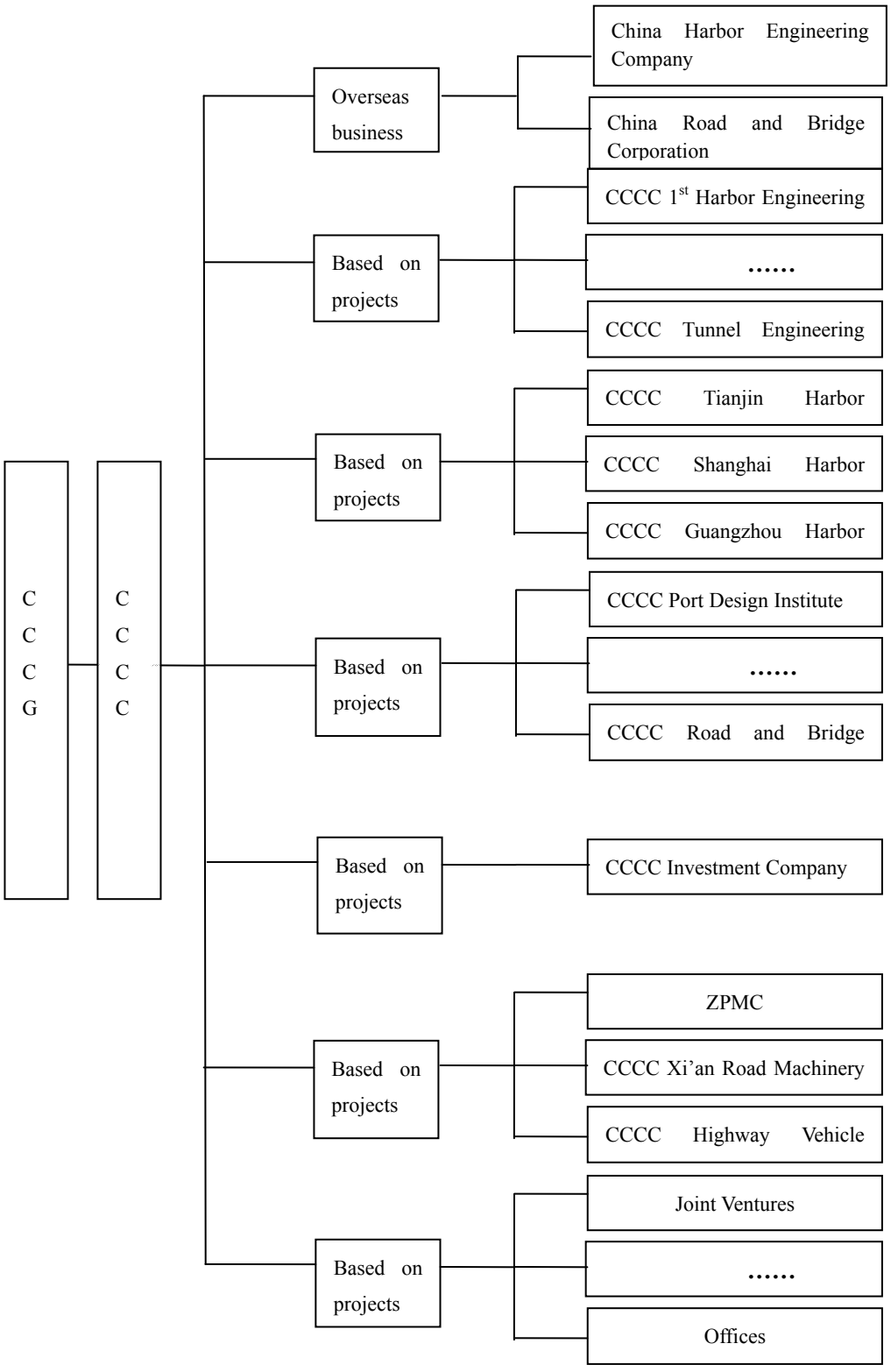
In order to further improve the capital structure and build a modern enterprise system, in October 2006, approved by the State Council, CCCG took its all main businesses and related assets as input to restructure and exclusively launch CCCC and successfully had it listed in the Joint Stock Exchange of Hong Kong in December 2006. CCCG became a state-holding enterprise with international capital background.

Through an overall listing, CCCG raised a fund of $ 2.4 billion, which greatly mitigated the fund contradiction caused by quick development and changed the debt structure of company. CCCG was the first global offering of infrastructure construction companies in China and the first overseas overall listing company among central enterprises, and it is also the biggest nonfinancial Chinese enterprise to conduct initial public offering in 2006, which was called as "CCCG model" by SASAC and related media.

Through successful listing, CCCG established a standard corporate governance structure, optimized the capital structure, enhanced the sustainable development capacity of enterprise

and constructed a reasonable organizational structure, as shown below in figure 11.

Figure 11 Structure of CCCC



It can be seen from the above figure that CCCG has conducted the classification for its affiliated enterprises according to its business scope; among which, as the main carrier of CCCG overseas business, China Harbor Engineering Company and China Road and Bridge Corporation play an irreplaceable role and become the organizational power to implement CCCG overseas strategy. In order to investigate the market entry mode selection of CCCG's international operation, it is necessary to introduce the major carriers in development of overseas business of CCCG.

4.2.1.2 China Harbor Engineering Company (CHEC)

China Harbor Engineering Company ("China Harbor" for short and the English abbreviation CHEC) is a comprehensive foreign trade enterprise affiliated to CCCG, and it is one major carrier for development of overseas business of CCCG. Its main business includes the international engineering contract, foreign economic assistance and technical labor cooperation in construction field and its core business is involved in five fields: the marine engineering, dredging and filling, road and bridge, port machinery and investigation design.

China Harbor derived from China Harbor Engineering Company established in 1980; in 1997, it became China Harbor Construction (Group) Company; On December 8, 2005, under the background that the original China Harbor (Group) Company and China Road and Bridge Group were combined into CCCG, the new China Harbor was registered and established. As an independent company under CCCG and jointly composed of the Fourth Harbor Engineering Bureau, Shanghai Navigation Channel Bureau, the Fourth Harbor Engineering Investigation and Design Institute, China Harbor integrated the foreign institutions and overseas business of original China Harbor Group and inherited the general contracting qualification, authentication certificate of management system, qualification of foreign trade and foreign assistance business, talents operating the overseas business and related operation achievements of original China Harbor Group. Meanwhile, "China Harbor" (CHEC), a brand jointly created by the members of original China Harbor Group, survives.

After recombination, through years of development, the operation scale and profit have been dramatically increased, and the operation achievements have also stepped onto a new level in successive years. In 2010, the new contract value was $ 4.08724 billion, 113.48% of that in 2009; the turnover was RMB 15.0918732 billion, 116.23% of that in 2009, the net profit was RMB 780.3142 million, 187.29% of that in 2009, all of which were the new historical record in main business of China Harbor.

4.2.1.3 China Road and Bridge Corporation (CRBC)

China Road and Bridge Corporation (CRBC) is a large-scale state owned foreign trade enterprise approved by SASAC of the State Council, inheriting the achievements and qualifications of original China Road and Bridge (Group) Corporation, aiming at road, bridge, tunnel project and harbor construction and concurrently undertaking the trade, investment, renting and service business. And it is also an important carrier, window and platform of overseas business of CCCC; besides, it has established branches in 45 countries and regions in the world and formed an efficient and quick operation, development and management network in Asia, Africa, Europe and South America.

China Road and Bridge Engineering Co., Ltd. inherits the original China Road and Bridge (Group) Company. And its predecessor was the Foreign Aid Office of Ministry of Communications of the People's Republic of China. In 1979, China Road and Bridge Engineering Company was established under the approval of the State of Council; in 1989, it was renamed as China Road Construction Company; in 1997, it was built as China Road and Bridge (Group) Company; in December of 2005, it was restructured as China Road and Bridge Corporation.

CRBC has special qualifications for road engineering construction contract, first-class qualification for many engineering contracts and professional contract qualification; meanwhile, it also has the contracting capacity and project investment and financing capacity for large projects. In recent ten years, CRBC has won the national-level and provincial-level awards for many times in terms of project construction and design, such as "China Construction Engineering Luban Award", "Zhan Tianyou Civil Engineering Science and Technology Award", "Award for National Excellent Engineering" and "Award for Provincial Excellent Engineering".

CRBC has entered the international contracting market since 1979, and it has undertaken more than 500 engineering and labor projects successively in Asia, Africa and Middle East area for more than thirty years and completed more than $ 10 billion of turnover; besides, it also has undertaken more than 5,000 km of highways and more than 10,000 linear meters of bridges. Its business scope covers the design and construction of road, bridge, water supply and drainage system, industrial and civil buildings, municipal engineering, railway, airport and harbor project. It has successively undertaken many famous engineering projects such as Mosul 4th bridge and 5th bridge in Iraq, friendship harbor in Mauritania, 300,000 ton dry dock in Malta, North section of West Kowloon Expressway in Hong Kong, A 109 national highway in Kenya, ring road in Addis Ababa, capital of Ethiopia and

"China-Kyrgyzstan-Uzbekistan" highway. Recently, CRBC actively implements the cooperative projects under the government framework and successively completed the Congo Nelspruit cement plant. This plant started official operation in 2004. Since entry into the international contracting market, CRBC has won many influential international awards, such as "International Mercury Award" and "International Arab Award". CRBC has created its own brand in international construction engineering industry; since 1985, it was listed as one of the biggest 225 international contracting companies in the world by American Engineering News Record (ENR) in successive years and it is well known in Asian, African and European market.

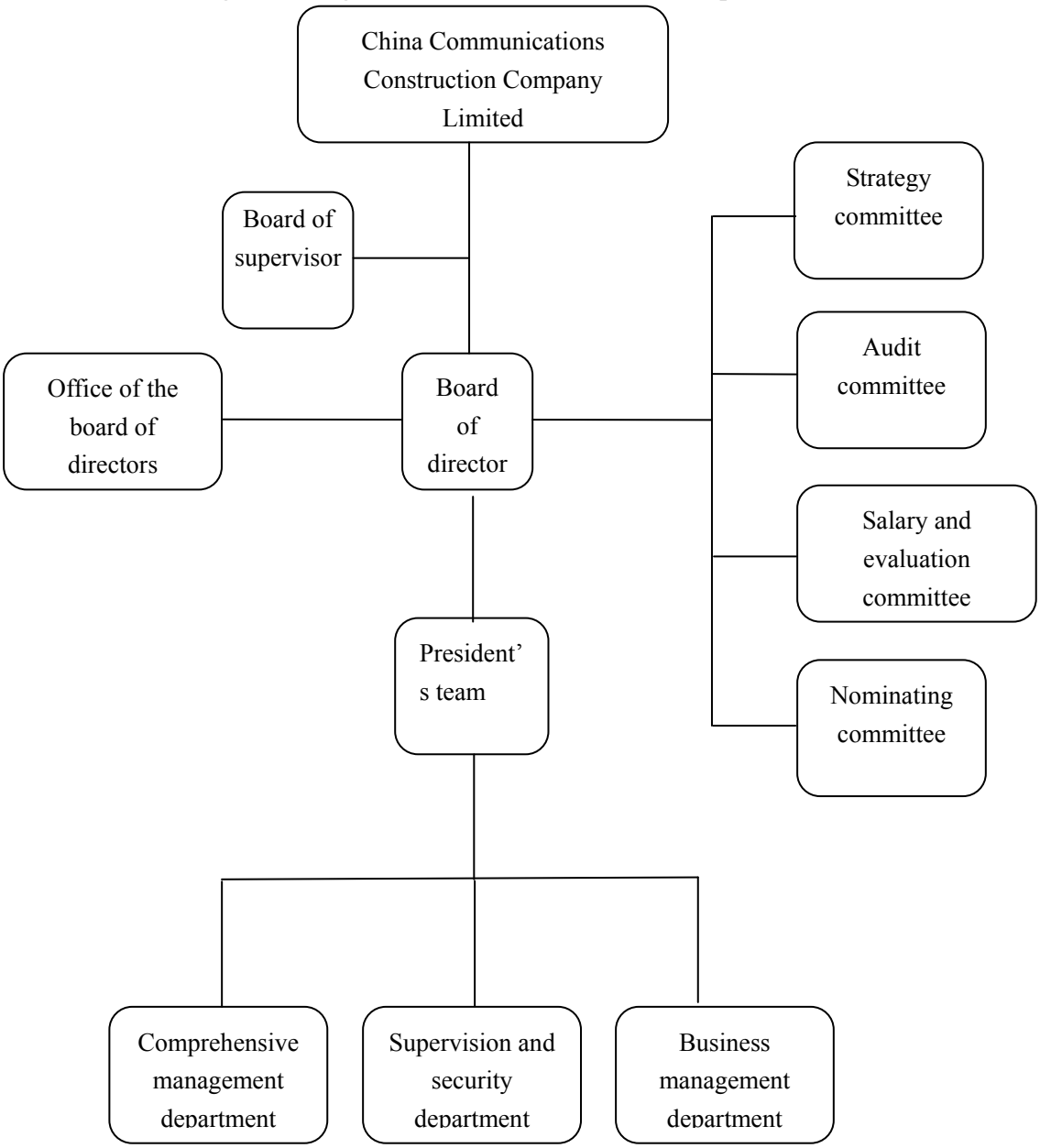
4.2.1.4 Main Features of Internal Control of CCCC

As a giant central enterprise under the SASAC, CCCC is characterized by many subsidiaries and cumbersome branches. In order to give full play to the synergistic effect between the subsidiaries of CCCC and achieve the optimized allocation of resources in CCCC, the new requirements are put forward for the organization structure and functional position of CCCC's headquarters.

The previous researches suggest that the Multidivisional Structure (M-Form) organization structure is a relatively proper choice for the large capital-intensive and diversified operating companies and the large enterprises of Unitary Structure (U-Form) and Holding Company (H-Form) structures are evolved into the model eventually due to their respective defects (Wu Jinglian, 2004). Under the M-form structure, the corporate headquarters is in charge of promoting the implementation of synergistic effect and acts as synergistic manager. Through five years of exploration and practice, the headquarters of CCCC further deepens the understanding of laws of market economy and enterprise development, strengthens the confidence to develop the enterprise well, accumulates valuable experience and explores a "CCCC model" of innovation and development for the central enterprises.

The model is mainly M type (M-Form) and if it is divided by main business, there are eight business sectors: overseas business, infrastructure construction business, dredging business, infrastructure design business, investment business, equipment manufacturing business, other business and main external organization as shown in following Figure 12:

Figure 12 Organization structure chart of headquarters of CCCC

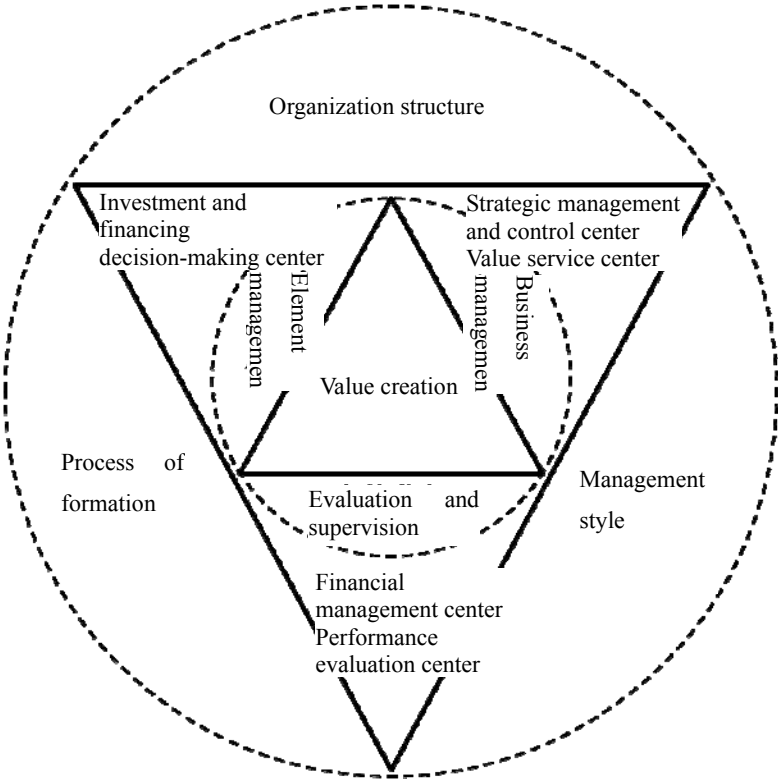


The corporate headquarters adopts the management policy of "centralized decision-making and separate administration" to give full play to the advantages of M form organization structure. In combination with the model, the group adopts the management style of strategic control. It does not only carry out the strategic arrangement and planning but also implements the financial control of subsidiary. on the aspect of strategic planning, the headquarters can focus on the directional and fundamental issues related to the overall development of company, timely draw up the enterprise development planning, put forward the enterprise vision, medium- and long-term strategic positioning and strategic objective and provide important basis for the company to make correct decision and seize the opportunity.

On the aspect of investment and financing, it further standardizes the investment behavior, prevent the investment and financing risks, carry out the strict capital budget management, strengthen the internal and external fund raising, effective supply and centralized management of company and better realize the orderly and effective implementation of investment and financing activities.

Based on the above thought, CCCC puts forward more specific positioning for the corporate headquarters as shown in Figure 13.

Figure 13 Model of functional position of group headquarters



Group headquarters emphasize on value creation so as to effectively improve the group's overall value, encourage the company to improve performance and competitiveness, and promote the sustainable development of the group. The prerequisite of Group headquarters to create value is the reasonable function orientation that based on reasonable management mode (organization structure and management style). Function orientation affects the value creation and is mainly divided into three aspects such as element management, business management, examination and supervision. At the same time, the above three aspects can be detailed into six centers of functional orientation: strategic control center, value and service center; resource allocation center under element management, investment and financing decision

center; the value service center under linking impact and performance evaluation center of function service. Specifically, the functions of six centers of these three aspects are embodied as follows:

(1) Business management

Business management is the most important function of corporate headquarters. The headquarters through deciding major businesses guide subsidiaries to create more value and whole competitive advantage.

a. Stick to center on strategic control

Strategic management is the long-term and fundamental management of the company. Wrong strategic decision will bring the enterprise extremely serious consequences; even some are irreversible, which brings catastrophic consequences to the company to destroy the enterprise value. Headquarters, as a command center of the company's development and reform, primarily is responsible for making scientific decisions of big issues, the future development goal and direction in the development of the company. The developing speed, business performance and efficiency of the company are closely related to the resources prospective and decision making of the headquarters.

b. Stick to center on value service and strengthen the "value contribution" of headquarters

The functions of the headquarters are reflected on the supervision management and coordination services, as well as the value service to subsidiary companies. Headquarters and subsidiary companies form "community of interest" and "community of life", through coordination and related management, to promote the vertical and lateral contact and cooperation between subsidiaries, achieving economies of scale and scope economy. At the same time, the company headquarters leads top marketing, and becomes an "engine" of developing markets. Company headquarters strengthen the core values and culture construction, lead subsidiary companies to set up "big team" consciousness, strengthen the management association, promote the cohesion of China Communication Construction shares, and conclude a development target of maximizing "sustainable development capability", "overall interest", and "social value".

(2) Element management

Element management is that, the company headquarters timely identify, deploy, change and innovate the key elements of the company. Management elements are categorized into staff, fund, method, machinery and equipment, materials, market and so on in the company.

a. Stick to center on resource allocation

Headquarters strengthen the effective allocation of human, fund, material, market and other core resources, increase value to maximize the Group benefits. For human resources, insist on cultivating and configuring high-end talents, formulate development plan of key talents, do well in the cultivation, training and scientific configuration of middle and high-level specialized technical personnel. For fund, insist on centralized management of financial assets and funds. Through setting up financial company, confirmedly promote the centralized management of fund; focus on the safety of the subsidiary companies' assets and fund, and centralized purchasing for goods and materials of large-scale equipments and its uniformed management.

b. Stick to center on investment and financing decision

The headquarters, according to management limitation, enhance the decision control of investment, merger, fund concentration, purchasing and sales, large amount of goods and materials, and large-scale equipment procurement, financial derivatives and so on in high risky domains. At the headquarters, it is necessary to set up the comprehensive risk control system and working mechanism and improve the risk assessment of investment decision-making and monitoring mechanism.

(3) Evaluation and supervision

CCCC realizes powerful restrictions and encouraging measures through effective assessment index; and it reduces the internal control risk through identifying and analyzing risks.

a. Stick to center on performance evaluation

The headquarters is devoted to strengthening the construction of market-adaptive and differential incentive and restraint mechanism in the recent years and attaching great importance to the sound and complete evaluation methods and standards at all levels by the means of the performance appraisal of this functional department, imposing impact on the decision and policy of subsidiaries. It adheres to the combination of quantitative and qualitative principles to give full play to the guidance function of performance appraisal.

b. Stick to center on risk management and control

The headquarters should analyze the risk factors facing the subsidiaries during its operation regularly, prepare the risk prevention measures and response solutions, enhance the daily risk evaluation of the company and practically combine the risk management with various operating management activities, especially each main business procedure to improve

the risk warning, responsiveness and management level.

The following text will discuss the CCCC strategic planning and its entry mode to internationalization market based on the division of functions of above organization structure and headquarter-subsidiary. It is a guarantee for the organization to realize its strategic goal.

4.2.2 Organizational Development of CCCC

Through the recombination and institutional reform as well as the overall listing of CCCC, CCCC pools a large amount of funds to alleviate the financial pressure arising from the rapid development, change the liabilities structure of CCCC and build a more normative corporate governance structure, laying a solid foundation for the development of CCCC and enhancing its sustainable development capability.

As the overall listing of CCCC was completed, CCCC has conducted a series of merger and recombination, built a new business platform, completed and expanded the industrial chain, promoted the integration of its resources and optimized its business layout in order to promote the further organization development of CCCC.

CCCC completed the reorganization work of China Real Estate Development Group Co., Ltd successfully and the latter was merged into the CCCC entirely, which marks the acquisition of real estate operation platform by CCCC, which is beneficial to create the new profit growth points, accelerate the transformation and adjustment of business structure and expand the business scope.

The initial transnational merger and acquisition of the world famous offshore drilling platform design company – American F&G Corporation was completed by CCCC successfully, which creates a high-end technological platform for the ocean heavy industry field. With the combination of the design capability and technical resources of F&G and the powerful manufacturing capability of CCCC, a complementary advantages and synergy of the resource comes into being to lay a solid foundation for the development of new business in international market.

CCCC also completed its recombination and institutional reform work, including the merger of Xi'an Road Construction Machinery Co., Ltd. into its equipment manufacturing section, and the merger of Shanghai Port Machinery Co., Ltd into Shanghai Zhenhua Heavy Industries Co., Ltd, as well as the transfer of new plant assets and the whole merger of China Communication Information Center into CCCC Water Transportation Planning and Design

Institute Co., Ltd., in order to effectively promote the integration of the company's resources.

From 2005 to 2010, the production and management of CCCC developed fast, its economic benefit improved steadily, its asset size expanded rapidly, its market share increased further, its profitability was enhanced sustainably and multiple operating indicators hit an all-time high record. See table 13.

Table 13 Major indicators from 2005 to 2010

Items	2005	2006	2007	2008	2009	2010
Turnover (RMB 100 million)	852	1147	1517	1804	2285	2736
Total profit (RMB 100 million)	29	44	83	94	98	119
Net profit (RMB 100 million)	19	24	64	77	76	95
Total assets (RMB 100 million)	727	1281	1730	2218	2679	3111
Owner's equity (RMB 100 million)	147	350	597	564	704	750
Return on total assets (%)	5.81	2.25	4.17	3.92	3.10	3.28
Return on net assets (%)	19.16	9.36	12.43	13.43	11.99	13.07
Asset-liability ratio (%)	79.83	68.79	65.49	74.57	73.72	75.89

It can be seen from the above table that the contract value of CCCC increased 3 times from RMB 111.5 billion in 2005 to RMB 438.8 billion in 2010. The turnover of CCCC increased 3.2 times from RMB 85.2 billion in 2005 to RMB 273.6 billion in 2010. The total profit of CCCC increased 4.1 times from RMB 2.9 billion in 2005 to 11.9 billion in 2010. The total assets increased 4.3 times from RMB 72.7 billion to RMB 311.1 billion. The owner's equity increased 5.1 times from RMB 14.7 billion to RMB 75.0 billion.

4.2.3 Analysis and Evaluation of the Operation of CCCC

4.2.3.1 Analysis and Evaluation of Its Business Scope

The business of CCCC can be divided into 6 business segments according to the current management, including capital construction and design, dredging, equipment manufacturing, overseas business and investment business. The specific operation indicator of each business segment is shown in table 14.

Table 14 Major business composition of CCCC in 2009

Items / Classification	Contract value		Turnover		Total profit	
	Amount (RMB 1 million)	Proportion (%)	Amount (RMB 1 million)	Proportion (%)	Amount (RMB 1 million)	Proportion (%)
Capital construction	250548	64.78	148885	65.16	3333	34.17
Capital construction design	11862	3.07	9168	4.01	1283	13.15
Dredging	29677	7.67	24790	10.85	2551	26.15
Equipment manufacturing	27870	7.21	28062	12.28	804	8.24
Overseas business	44126	11.41	22954	10.05	1680	17.22
Investment	12800	3.31	2278	1.0	77	0.79
offset business and others	9869		7651		26	
Total for CCCC	386752		228486		9754	

It is clear from the table above that the proportion of large civil works to the turnover of CCCC in 2009 was 85.95% and the manufacturing business and other businesses account for only 14.05%. The CCCC has not entered highly profitable business like franchising, real estate and energy, and its business structure is simple, mainly relying on the large civil works. However, the proportion of the large civil works business of Vinci Group is only 67.64% and that of its franchise business and energy business is 17.66% and 13.02% respectively. The proportion of the large civil works business of Bouygues Group is 66.05% and that of its real estate and telecommunication service business is 9.35% and 16.78% respectively; the proportion of the large civil works business of Spain ACS is only 39.04% and that of its industrial service and energy business is 43.73% and 16.82% respectively.

The contribution rate of the profit from the large civil works business of CCCC is up to

87.10% and that of its manufacturing business and other businesses is only 12.09%. As CCCC is of single profit resource and mainly relies on large civil works business, CCCC faces great market risk. By contrast, the contribution rate of the profit from the large civil works business of Vinci Group is only 31.01% and 60.04% of its profit comes from the franchising business. The contribution rate of the profit from the large civil works business of Bouygues Group is 47.22% and that of its real estate and telecommunication service business is 10.94% and 39.35% respectively.

From the above two indicators, it's clear that as the business structure of CCCC is simplex and it mainly relies on the large civil works business, so it is necessary to accelerate the adjustment pace of its business structure into the emerging industries which are of high profit margin and long term stable turnover and emerging industry.

4.2.3.2 Benchmarking Analysis of CCCC and Its Competitors

Through the comparative analysis between CCCC and 9 World Top 500 construction companies including Vinci Group, Bouygues Group, Spain ACS, China Railway Engineering Corporation, China Railway Construction Corporation, China State Construction Engineering Corporation, German Hochtief AG, Sweden Skanska AB and Japanese Kajima Corporation, it can be seen that in table 15.

Table 15 Benchmarking analysis statement of CCCC's competitors

Index in 2009		Average value of benchmarking enterprise	Median value of benchmarking enterprise	Index of CCCC	Ranking	Grade
Turnover	Amount ($ 1 million)	34957	35648	33465	6	Moderate
	Average annual growth rate in 5 years	14.43%	8.75%	28.05%	2	Fast
Gross profit ($ 1 million)		4239	3204	3104	6	Moderate
Net profit	Amount ($ 1 million)	1156	988	1055	4	Moderate
	Average annual growth rate in 5 years	43.80%	35.01%	46.39%	3	Fast

Total assets ($ 1 million)		38278	41909	38394	7	Few
Net assets ($ 1 million)		8602	8822	9701	5	Moderate
Staff		127649	124979	100461	7	Few
Index of economic benefit	Rate of gross profit	11.51%	8.68%	9.34%	4	High
	Rate of net profit	3.56%	2.43%	3.17%	4	High
	Rate of marketing cost and expense	86.15%	88.46%	88.66%	5	Moderate
	Return on asset	3.61%	3.46%	3.76%	5	Moderate
	Return on equity	17.14%	14.28%	15.03%	5	Moderate
Indicator of production efficiency	Output value per capital (dollar)	387909	321237	330860	5	Moderate
	assets per capita (dollar)	392758	323697	382175	4	High
	Total assets turnover (times)	1.04	0.99	0.87	7	Low
	Inventory turnover ratio (times)	25.78	13.50	11.43	6	Low
Evaluation index of capital market	Market value ($ 1 million)	13639	14756	12714	7	Low
	Price to earnings ratio (multiplier)	14.22	15.15	13.4	7	Low
	Price to book ratio (multiplier)	1.8	1.9	1.8	6	Low
Index of oversea s busines s	Overseas operating avenue ($ 1 million)	9495	6727	3216	5	Moderate
	Proportion of overseas turnover	31.92%	24.08%	9.68%	6	Low

Index of research and development expense	Research and development expense ($ 1 million)	198	101	256	2	High
	Proportion of research and development	0.49%	0.37%	0.77%	2	High

(1) The scale of CCCC is moderate and its growth rate is high

The index of CCCC including turnover, total assets, net assets, is in the moderate or low level, compared with that of Vinci Group, Bouygues Group, China Railway Engineering Corporation and China Railway Construction Corporation, it is much smaller. The growth rate of the major index of CCCC has been in the forefront of the benchmarking enterprises. The average annual growth rate of turnover in five years ranked 2, the average annual growth rate of net profit in 5 years ranked 3 and the growth rate of total assets in 2009 ranked the first.

(2) The profitability of CCCC is strong and its profit margin still has room to improve

The gross profit rate and net profit rate of CCCC is at excellent level compared with other enterprises; the return on assets and return on equity of CCCC is at moderate level; and the rate of marketing cost and expense is at low level. Generally, the profitability of CCCC is strong among the World Top 500 construction companies. However, compared with the enterprises such as Vinci Group and Spain ACS, the gap of profit margin between CCCC and those enterprises above is large. For example, the net profit rate of Vinci Group is 3.7 times of that of CCCC, but its rate of marketing cost and expense is only 67% of that of CCCC; the net profit rate of Spain ACS is 3.9 times of that of CCCC and its return on equity is 3.3 times of that of CCCC. Therefore, the profit margin of CCCC to be enhanced is large.

(3) The efficiency of CCCC is not high and it needs to be improved as soon as possible

The efficiency indicator of CCCC is low in general and the gap of total assets turnover and inventory turnover ratio between CCCC and the world-class construction companies is large. The total assets turnover of 0.87 times of CCCC is 0.85 times lower than that of Sweden Skanska; the inventory turnover rate 11.43 times of CCCC is only 8% of that of Sweden Skanska and the inventory turnover rate of Vinci Group is twice of that of CCCC. Although the output value per capital of CCCC is moderate, it is much different from that of Japanese Kajima Corporation, German Hochtief and Sweden Skanska. The efficiency level of each company represents their “internal strength” and the sustainable development of good quality of a company will depend on its efficiency, so it is necessary for CCCC to improve its

efficiency level.

(4) The internationalization level of CCCC is low and it is necessary to strengthen overseas market development

The turnover of overseas projects completed by CCCC was $ 3.216 billion in 2009, lower than that of German Hochtief, Vinci Group, Sweden Skanska, Bouygues Group, Spain ACS, China State Construction Engineering Corporation and China Railway Construction Corporation. The turnover of overseas engineering accounted for 9.68% of the overall turnover of CCCC, which was lower than that of German Hochtief, Sweden Skanska, Vinci Group, Bouygues Group, Spain ACS, Japanese Kajima Corporation and China State Construction Engineering Corporation and the profit contribution rate of CCCC accounted for about 17.22%.

In 2010 CCCC undertook more than 400 construction projects in more than 80 countries and regions around the world, among which the number of projects with contract value over $ 100 million was up to about 50. The contract value of overseas business undertaken by CCCC was approximate to $ 9.1 billion, 9 times of that in 2005; the completed overseas turnover was about $ 4 billion that increased 6 times of that in 2005; and the profit was $ 0.42 billion that grew 11 times of that in 2005. The overseas business operating scale accounted for about 21% and the profit contribution rate about 25%.

It is clear that the proportion of the turnover of overseas business of CCCC increased from 9.68% in 2009 to 21% in 2010 and its profit contribution ratio increased from 17.22% in 2009 up to 25% in 2010. Although the contribution rate of overseas business of CCCC has been increased greatly, a great difference still exists between CCCC and world-class construction contractors, for example, the proportion of turnover of overseas business of Germany Hochtief Corporation, the world number one, is up to 90%, serving as the major profit resource of this company.

Through the comparison analysis, we can find that the difference between CCCC and world-class construction contractors in the aspect of enterprise internationalization degree is large. See table 16.

Table 16 Internationalization degree analysis of CCCC in 2009

	CCCC	Lenovo	Huawei	Skanska	Vinci	Bouygues
Proportion of overseas assets	45%	60%	N/A	62%	N/A	N/A
Proportion of overseas financing	13%	51%	29%	57%	8%	35%
Proportion of overseas sales	9.68%	62%	60%	80%	38%	31%
Proportion of overseas employment	11%	23%	16%	72%	43%	43%

Specifically, the proportion of overseas assets of CCCC is 45% and that of its comparative enterprise – Skanska is up to 62%. The proportion of overseas financing of CCCC is 13% and that of Skanska and Bouygues is up to 57% and 35% respectively; the proportion of overseas sales of CCCC is 9.68% and that of Skanska is up to 80% and there is still a big difference between CCCC and Skanska. Through the above analysis, it can be seen that although CCCC has been equipped with certain overseas financing capability through listing and accumulated some experience in overseas market project, however, its internalization is still at very low level compared to that of world-class construction contractors.

In the aspect of the overseas business structure of CCCC, its business is mainly distributed in the areas of low market profit such as Asia and Africa and its market development in the countries and regions of mature development environment, low investment risk, large market scale and high profit rate such as Algeria, America, Middle East and Singapore is slow.

Table 17 Average profit rate of construction industry in major global markets from 2005 to 2010

Country and region	China	America	Middle East	Asia (others)	Europe
Average net profit rate of construction industry	1.6%	2.2%	2.4%	2.6%	3.8%

In conclusion, as the competition of traditional market, especially the domestic market intensifies and is saturated and the profit rate reduces, the internationalization of enterprise is low and its business structure is simplex; and the contribution rate of overseas market profit is low, the future development of CCCC should attach great importance to the development of overseas market. This is the necessary requirement for CCCC to realize profit growth.

Firstly, in order to realize the growth goals of CCCC, it is essential to develop the overseas business.

As the slowdown of domestic market and the strategy adjustment of CCCC to large projects, for the purpose of realizing the great increase of overall business, it is necessary to develop overseas market featuring high profit rate and high contribution to market share.

Secondly, the overseas business profit is higher.

The out-of-order competition and existence of cutthroat competition in domestic market reduce the project profit rate; however, the operation and process of overseas developed market is regular, the project management is high, so is the profit level.

Thirdly, it is beneficial to balance the domestic market risk by developing the overseas business.

The high uncertainties of the single domestic economic cycle and volatile investment policy have increased the risk of market operation which can be balanced by developing the overseas market.

Fourthly, it is beneficial to bring home the advanced experience and practices by developing the overseas business.

By approaching the overseas market to participate in international competition, CCCC is capable of accumulating advanced project management and operation experience and improving its core competitiveness, laying a solid foundation for its high-end projects of high profit rate in the future.

Based on the above analysis, the research issues in this thesis place emphasis on the internationalization strategy of CCCC. Compared to the domestic environment, the international environment is of great uncertainty related to the macroscopic factors including politics, economy and culture and the mid-scope factors such as the scale and structure of international construction market as well as the microscopic factors related to the enterprise itself. Through the analysis of the factors above, it is concluded that there is a higher requirement on the enterprise's competitive strength and the risk project implementation is

great.

In order to conduct deep analysis of this issue to provide a theoretic support of the selection of the internationalization strategy of CCCC, the author in the following chapter will evaluate the internal and external environment of the internationalization strategy of CCCC and conduct strategic positioning by virtue of SWOT analysis. In chapter VI, the international entry mode of CCCC will be discussed by combining two typical cases (Projects in Angola and Kenya).

4.2.4 SWOT Analysis on CCCC's Internationalization Operation

4.2.4.1 Strengths of CCCC Internationalization Operation

S1. Brand strength

CCCC ranks the 211th in Fortune Global 500, and it is the fifth biggest global project contractor; it owns the highest credit grade AAA in the credit grade of overseas project contracting operations of China and four well-known brands: CCCC, CHEC, CRBC and ZPMC.

S2. Market strength

CCCC is the biggest port design and construction enterprise in China, which has undertaken most of coastal medium and large sized port wharfs since the founding of the People's Republic of China, and it has a share of 85% in domestic navigation engineering market. CCCC is the world's leading design and construction enterprise of road, bridge and tunnel. It has participated in the construction of numerous domestic high grade trunk roads, and it has a share of 80% in super and large bridge market. CCCC is the world's first dredging enterprise which owns the largest dredging fleet in China, with the storage capacity of trailing suction hopper dredger and the total installed power of cutter-suction dredger both ranking first in the world, and it has a market share of more than 80% in domestic coastal dredging market. CCCC is the largest global container crane manufacturer, with its container crane service occupying more than 78% of the share in world market and the products exported to 120 wharfs of 74 countries and regions. CCCC is also the largest international project contractor and international design company in China and it has set up offices and affiliated agencies in more than 80 countries and regions.

S3. Scientific and technological strength

CCCC has the most advanced technology in the world in river-crossing and sea-crossing

bridges, submarine tunnels, deepwater fairway regulation, frozen earth and port mechanical production. The company has 10 large design institutes, 7 national-level technical centers, 14 provincial-level technical centers, 6 provincial and ministerial-level key laboratories and 7 post-doctoral scientific research workstations. From 2005 to 2010, CCCC successively achieved 543 patents of independent intellectual property rights. It has won 17 National Awards for Science and Technology Progress, 257 Ministerial and Provincial Awards for Science and Technology Progress, 28 Zhan Tianyou Grand Prize for Civil Engineering Awards and 35 National Construction Methods; and has formulated and practiced 103 standard specifications, accounting for 70% of transportation industry standards and norms.

S4. Integrated industrial chain strength

In transport and infrastructure construction field, CCCC has integrated project operation, investment, design, consulting, construction (erection), and later operation. It has established an integrated value chain and formed a unique industrial chain advantage to reduce risks and costs.

S5 Comprehensive capability for promoting and operating large scale projects

CCCC has good partnerships with government or employers, and it has abundant capital strength and financing advantage to support the company to gradually change from a single project contractor to an operator of large-scale projects. Meanwhile, the industrial chain and various resource advantages possessed by the company can ensure the smooth implementation of large scale projects.

4.2.4.2 Weaknesses of CCCC's Internationalization Operation

W1. Simplex business structure

At present, CCCC is only involved in large civil engineering and equipment manufacturing; furthermore, it excessively depends on wide civil businesses boosted by government investment; while it is seldom involved in industries with high profit margin, long-term and stable operational income (for example, real estate, franchise and energy.).

W2. Low internationalized degree

Compared with the first-class construction enterprises in the world, CCCC still lags behind in terms of the proportion of overseas turnover and occupancy. The overseas assets occupancy and its rate of utilization are also lower than those of the world's first-class construction enterprise. The CCCC is still short of international talents and it is lack of versatile high-level talents with language advantages, the ability of international business negotiation and project management.

W3. Low operational efficiency

The efficiency index of CCCC is on the low side generally, and there exists great distance between CCCC and the fist-class construction enterprises in terms of the three indexes (turnover rate of total assets, inventory and the GDP per capita), and the general operation efficiency of the enterprise is on the low side.

W4. Deficiency of synergistic effect in industrial chain

Though the CCCC possesses relative integrated industrial chain, its synergistic effect is not fully displayed and the internal homogenization competitions are serious.

W5. Imperfect management style needs improving

The management structure is not clear and effective enough. The current management style of CCCC is to directly manage the nearly 40 subsidiaries in various business segments by departments of the head office, so it is hard to avoid the competition of subsidiaries in each segment, thus it cannot form a better synergistic effect and realize the shared mechanism and optimization configuration of the resources. Some enterprises in the same segments are developing toward the direction of 'small but comprehensive' style, and it is hard to form a differentiation and specialization advantage.

4.2.4.3 Opportunities Facing Internationalization Operation of CCCC

O1. Quick growth of overseas infrastructure construction market

According to the forecast of the World Bank, in 2010-2012, the global economy will go into gradual recovery; Asia-Pacific, South Asia and Africa of South Sahara will be the hot spots of global economy growth, the government expenditures and investment in the fixed assets of the three areas will keep a high rate of growth. Europe, Latin America and the Middle East and North Africa have a relative slower growth rate; after the previous economic stimulus plan, they may reduce the government expenditures and investment in the fixed assets gradually.

According to the analysis report in Global Construction 2020 jointly issued by 'Global Construction Perspectives' and Oxford Economics, the global construction market will grow at an average annual rate of 4.9% in the next 10 years, the production value of global construction industry will grow up to 12.7 trillion dollars and occupy 14.6% in global gross output in 2020. China, India, Russia, Brazil, Poland, and America and other countries will become the main areas of the growth of construction industry. The report estimates that the construction market of the newly-emerging nations will exceed developed countries after the financial crisis, from 2011 to 2020, the construction industry production value of

newly-emerging nations will increase by 110% and reach 7 trillion dollars, and it occupies 55% of global construction market and 17.2% of global total output value of 2020. Especially in infrastructure construction, because the newly emerging nations are faced with the strong demand of transportation system upgrading and building facilities reforming, the production value of infrastructure construction is expected to increase by 128%, and the growth rate of non-residential infrastructure construction will reach about 100%. The forecast of growth rate for production value of construction of developed countries is only 35%, and the occupied share in global construction market will reduce from 65% in 2005 to 45% in 2020, where the growth of infrastructure construction of developed countries may be only 18%. According to the analysis on CIBC global market, in the next 20 years, the global investment for infrastructure construction is expected to reach 35 trillion dollars, with an average annual investment of 1.75 trillion dollars, mainly in airport, port, energy infrastructure and railway and other fields. The developing countries in Asia-Pacific, South Asia and the Middle East will be the hot spots. The rapid growth prospect of overseas infrastructure construction market provides huge market opportunities for the overseas expansion of CCCC.

O2. Container port machinery has entered into an upgradation cycle

By 2009, the global retention of Shore Bridge had been about 4,600 sets, with about 1,000 sets put into operation before 1995. Therefore, estimated by the service life of 20 years, the container port machinery will enter an upgrading cycle around 2012 successively. Combining with the containerized trade's increase boosting the new construction of the port and the need of the port machineries for rebuilding and expansion, there will be about 200 sets of Shore Bridges to be upgraded; calculating by a scale of 2:1 for Yard Bridge and the Shore Bridge, there will be demand for more than 400 sets every year. The global market capacity is about 3 to 4 billion dollars.

O3. Capacity of the steel structure market has expanded

The market capacity of steel structure is large and the competitors are everywhere and the competition is quite fierce. According to the analysis of consulting authorities, the global market capacity of large steelwork is about $ 10 billion.

O4. The demand of oceaneering equipments has increased

According to the forecasts of oceaneering authoritative analysis agency ODS, from 2010 to 2015, the demand of world's marine drilling units will be 83-116 sets, the annual expenditure of global oceaneering is $ 300-400 billion, in which the annual market capacity of the oceaneering equipments is about $ 30-50 billion.

O5. The implementation of national ‘go global’ strategy

Since ‘the Eleventh Five-Year’ Plan, China has vigorously implemented ‘go global’ strategy for the state owned oversize enterprises, and strongly supports them through policies and capital, which provides a national guarantee mechanism for international operations of CCCC.

4.2.4.4 Threats to Internationalization Operation of CCCC

T1. Increasing risk in international project contracting market

According to the international situation, the main risk is that the recovery of western countries’ economy is slow, with America’s quantitative easing policy and Europe’s debt crisis following one after another, the exchange rate risk increases further. The fluctuation of commodity price becomes more violent, some countries set up barriers such as foreign exchange control, labor limitation, environment protection and security, and technical specification, the competition in international project market becomes fiercer.

T2. Fierce market competition and increasing non-trade barrier

In the international construction market, the foreign contractors of large-scale projects achieve high efficiency and low cost through modern management and technical means, they configure the resources in the globe and enjoy strong competitive strengths, so CCCC faces a very fierce market competition. Though the trade barrier among countries has been largely reduced under the influence of trade liberalization and WTO rules, all countries constantly establish some non-trade barriers to protect their manufacturing industries, increasing the threshold for enterprise to enter. Therefore, this has increased the difficulty for CCCC’s internationalization operation.

T3. Global low demand for harbor machinery

It will take 2 or 3 years to return to the demand level before financial crisis.

T4. International logistic industry is in downturn

The excessive transport capacity of international shipping industry is not solved fundamentally. The international shipping business is still in downturn. As downstream industry of international shipping industry, logistics industry will not become prosperous, restraining CCCC from expanding in logistic field.

T5. Competition threat of other domestic large construction companies in overseas market

Major domestic competitors (like China Railway Group, China Railway Construction

Corporation Limited and China State Construction) magnify the gap with CCCC on turnover; meanwhile, their profitability and growth rate is approximate or over CCCC. They continuously penetrate into CCCC's traditional fields (like port construction), which intensifies competition threat to CCCC's overseas market.

4.2.5 Strategic Positioning Based on SWOT Analysis

4.2.5.1 Saaty's AHP Method

In this part we will introduce AHP method into SWOT structure to combine quality and quantity. It can be known from the aforementioned analysis that, generally, AHP method firstly divides factors in issue into objective layer, criterion layer and proposal layer according to subjection and relation. Take CCCC as an example, the objective layer is evaluation on company's strategy in overseas market; the criterion layer is constituted by the strength, weakness, opportunity and threat and their sub elements in the SWOT analysis of CCCC international operation; and the project layer is four strategies, respectively SO, WO, ST and WT, of CCCC.

Secondly, make a comparison between elements in the same layer in SWOT model to reflect its comparative importance and establish corresponding judgment matrix. Assuming that we have an M indicator $X=\{x_1,x_2,...,x_m\}$, compare x_i with x_j to reflect their comparative importance, in which, the value range of i and J is from 1 to m and the comparison result is expressed as a_{ij}. The value of $m*(m-1)/2$ is needed to be given by the matrix, in which, the element on the diagonal line is 1 and the elements not on the diagonal line shall keep a corresponding relation $a_{ij}=1/a_{ji}$, in which a_{ij} is integer variable ranging from 1 to 9. Its specified meaning is as following Table 18.

Table 18 Value range of elements and their important meanings of Saaty judgment matrix

Value range of a_{ij}	Comparison of importance	Meaning
1	Equally important	x_i and x_j of the same importance
3	Normally important	x_i is little more important than x_j
5	Relatively important	x_i is more important than x_j
7	Very important	x_i is much more important than x_j
9	Extremely important	x_i is extremely more important than x_j
2, 4, 6, 8	Intermediate value	The importance is relevant to the value range

The first questionnaire gives the important value range of each element in SWOT analysis. The interviewees mark the relative importance of each element under SWOT structure with a range from 1 to 7. The final judgment matrix will be obtained after calculating average mark and accumulative marks, which is the core of AHP quantitative analysis.

After obtaining judgment matrix, thirdly, sort them out on their different influence on objective layer. Calculate $w_i^* = \sqrt[n]{\prod_{j=1}^{n} a_{ij}} \ (i = 1, 2, \ldots n)$, $w_i = w_i^* \Big/ \sum_{i=1}^{n} w_i^*$, $S_j = \sum_{i=1}^{n} a_{ij}$ and judge maximum Eigen value of Matrix A $\lambda_{\max}$. Take strength of these indicators to carry out conformity test on Matrix A $CI = \frac{\lambda_{\max} - n}{n-1}$.

4.2.5.2 Judgment Matrix

AHP method needs to make a comparison between elements in criterion layer to get relevant judgment matrix. The comparative structure is as the following table.

Table 19 SWOT analysis structure of CCCC

Strength	S1: Brand and market S2: Talents and technology S3: Complete industrial chain and comprehensive capability to promote and operate large project S4: Equipment S5: Financing
Weakness	W1: Single business structure, low internationalization and low operation efficiency W2: Short of top-notch talents, low information efficiency W3: Loose project management, lack of synergetic effect on industry chain, management style needs improving
Opportunity	O1: Implementation of “going global” strategy O2: Quick increase of overseas infrastructures construction market; O3: Upgradation of in container port machines and increase of market capacity of steel structure and marine engineering equipment
Threat	T1: Competition threat from other large domestic construction enterprise in overseas market T2: Increase of risks in overseas market, fierce competition of international engineering market and increase of non-trade barrier T3: Downturn of international demand on harbor machines and international logistics

Based on the formation of judgment matrix, we calculate the total scores and mean scores of the four items including opportunity, threat, strength and weakness, and show the relative importance ratios of the two factors comparatively under the four items as shown in Table 20.

Table 20 Mean scores and total scores of strength factors

	S1	S2	S3	S4	S5
Total score	759	689	719	688	603
Mean score	6.125	5.5625	5.7969	5.5469	4.8594

$$A=\begin{bmatrix} 1 & 4 & 3 & 4 & 7 \\ 1/4 & 1 & 1/2 & 2 & 4 \\ 1/3 & 2 & 1 & 3 & 5 \\ 1/4 & 1/2 & 1/3 & 1 & 4 \\ 1/7 & 1/4 & 1/5 & 1/4 & 1 \end{bmatrix} \rightarrow \begin{bmatrix} 3.2 \\ 1 \\ 1.6 \\ 0.7 \\ 0.3 \end{bmatrix} \rightarrow W=\begin{bmatrix} .4 \\ .15 \\ .23 \\ .08 \\ .14 \end{bmatrix}$$

$\lambda_{\max}=5.1$

$CI=1.12, CR=0.015<0.1$

Through the above calculation, we can obtain the weight of each strength item and judge whether the matrix passes consistency examination.

Table 21 Mean scores and total scores of weakness factors

	W1	W2	W3
Total score	543	535	541
Mean score	4.3750	4.3125	4.3594

$$A=\begin{bmatrix} 1 & 2 & 1 \\ 1/2 & 1 & 1/2 \\ 1/2 & 2 & 1 \end{bmatrix} \rightarrow \begin{bmatrix} 1.26 \\ .63 \\ 1.26 \end{bmatrix} \rightarrow W=\begin{bmatrix} .4 \\ .2 \\ .4 \end{bmatrix}$$

$\lambda_{\max}=3.13$

$CI=0.011, CR=0.012<0.1$

Through the above calculation, we can obtain the weight of each weakness item and judge whether the matrix passes consistency examination.

Table 22 Mean values and total values of the opportunity factors

	O1	O2	O3
Total score	397	287	215
Mean score	6.2031	5.4844	4.8594

$$A=\begin{bmatrix}1 & 4 & 7\\ 1/4 & 1 & 5\\ 1/7 & 1/5 & 1\end{bmatrix}\rightarrow\begin{bmatrix}3.04\\ 1.08\\ .31\end{bmatrix}\rightarrow W=\begin{bmatrix}.29\\ .46\\ .25\end{bmatrix}$$

$\lambda_{\max}=5.05$

CI=0.02, CR=0.034<0.1

Through the above calculation, we can obtain the weight of each opportunity item and judge whether the matrix passes consistency examination.

Table 23 Mean scores and total scores of the threat factors

	T1	T2	T3
Total score	397	287	215
Mean score	6.2031	5.4844	4.8594

$$A=\begin{bmatrix}1 & 4 & 7\\ 1/4 & 1 & 5\\ 1/7 & 1/5 & 1\end{bmatrix}\rightarrow\begin{bmatrix}3.04\\ 1.08\\ .31\end{bmatrix}\rightarrow W=\begin{bmatrix}.35\\ .5\\ .15\end{bmatrix}$$

$\lambda_{\max}=3.04$

$CI=0.02, CR=0.034<0.1$

Through the above calculation, we can obtain the weight of each threat item and judge whether the matrix passes consistency examination.

Table 24 Total scores and mean scores analyzed in SWOT

	N1	N2	N3	N4
Total score	616	591	589	415
Mean score	4.9688	4.7656	4.7500	3.3437

$$A=\begin{bmatrix}1 & 2 & 2 & 8\\ 1/2 & 1 & 2 & 7\\ 1/2 & 1/2 & 1 & 7\\ 1/8 & 1/7 & 1/7 & 1\end{bmatrix}\rightarrow\begin{bmatrix}2.38\\ 1.63\\ 1.15\\ 0.22\end{bmatrix}\rightarrow W=\begin{bmatrix}.31\\ .17\\ .25\\ .27\end{bmatrix}$$

$\lambda_{\max}=4.05$

$CI=0.016, CR=0.018<0.1$

Through the above calculation, we can obtain the weight of each item in the SWOT analysis and judge whether the matrix passes consistency examination.

4.2.5.3 Weight Value of SWOT Framework

The calculating results of each factor's weighted values in SWOT framework are listed in the upper part in Table 25. In the following part, we expect to use these weighted values to evaluate the SWOT system of CCCC.

Table 25 Weighted values of SWOT framework of CCCC

Strength (0.31)	S1: S1: Brand and market; (0.4) S2: Talents and technology; (0.23) S3: Complete industrial chain and comprehensive capability to promote and operate large project; (0.15) S4: Equipment; (0.08) S5: Financing; (0.14)
Weakness (0.17)	W1: simplex business structure, low internationalization and low operation efficiency; (0.4) W2: short of top-notch talents, low information efficiency ; (0.2) W3: loose project management, lack of synergetic effect on industry chain, management style needs improving; (0.4)
Opportunity (0.25)	O1: Implementation of "Going global" strategy; (0.29) O2: Quick increase of overseas infrastructures construction market; (0.46) O3: Upgradation of container port machines and increase of market capacity of steel structure and marine engineering equipment (0.25)
Threat (0.27)	T1: Competition threat from other large domestic construction enterprises in overseas market; (0.35) T2: Increase of risks in overseas market, fierce competition of international engineering market and increase of non-trade barrier; (0.5) T3: Downturn of international demand on harbor machines and international logistics; (0.15)

From the aforesaid analysis, we know that among the four items, namely, opportunity, threat, strength and weakness, strength accounts for the most of 0.31, followed by threat of 0.27 and opportunity of 0.25 and weakness of 0.17 respectively.

4.2.5.4 Strategy Evaluation Results

This part is to evaluate the strategy of CCCC combining data of the two parts. The first part of the data is the SWOT weight system calculated by the above part and the second part of the data is the project scores obtained from the second questionnaire. The quantitative analysis for CCCC can be made by using these two parts of data.

In the second questionnaire, the respondents score it in the quantitative form of 1, 2, 3, 4, and 5. These evaluation scores will be turned into 20, 40, 60, 80 and 100 accordingly. What is put into is the average value of each item, combined with weight system; output is SWOT elements and evaluation of corresponding strategies.

1) Evaluation of strength, weakness, opportunity and threat

Table 26 Weights and scores of CCCC SWOT analysis

	Item	Weight	Score
Strength (0.31)	S1: Brand and market;	0.4	92
	S2: Talents and technology;	0.23	85
	S3: Complete industrial chain and comprehensive capability to promote and operate large-scale project;	0.15	88
	S4: Equipments;	0.08	77
	S5: Financing; (0.14)	0.14	78
Weakness (0.17)	W1: Simplex business structure, low internationalization and low operation efficiency;	0.4	69
	W2: Lack of advanced talents and low information efficiency;	0.2	54
	W3: Loose project management, lack of synergistic effect of industrial chain and the management style needs improving;	0.4	61
Opportunity (0.25)	O1: The implementation of “go global” strategy;	0.29	77
	O2: Rapid growth of overseas infrastructure construction markets;	0.46	90
	O3: The upgradation of container port machinery and the increasing capacity of steel structure and marine engineering equipment markets;	0.25	84
Threat (0.27)	T1: Overseas markets of other large construction enterprises of the country;	0.35	81
	T2: Increasing risks for overseas markets, fierce competition of international project markets and the increasing non-trade barriers;	0.5	85
	T3: The low demand for port machinery and the development of international logistics industry is at its low level;	0.115	64

From the above scores, it can be seen that brand and market, talents and technology, complete industrial chain and comprehensive capability to promote and operate large-scale project are mostly accepted, while the low information level, project management style and insufficient product demand are not very important factors.

(1) Scores of strength

$$0.4*92 + 0.23*85 + 0.15*88 + 0.08*77 + 0.14*78 = 86.63$$

From the above score, it can be concluded that, although the competition of international project markets and the non-trade barriers is steadily on the rise, CCCC still retains the strong competitive advantages. In the further development, CCCC will rely on its strengths of brand and market, talents and technology and complete industrial chain and comprehensive ability for large-scale project operation to explore overseas market and maintain its competitive advantages.

(2) Scores of weakness

$$0.4*69 + 0.2*54+0.4*61 = 62.8$$

From the above questionnaire, it can be concluded that the interviewees don't give the weakness of CCCC as high marks as they give to the strengths. Two reasons can be drawn. First, the interviewees do not pay special attention to the weakness of CCCC such as simple business structure, low level of internationalization and low operation efficiency; loose project management, lack of synergistic effect of the industrial chain. Second, the weakness is not considered by the interviewees, compared to other competitors of the CCCC.

(3) Scores of opportunity

$$0.29*77 + 0.46*90 + 0.25*84 = 84.73$$

Many interviewees take the implementation of "going global" strategy of the country and the rapid growth of overseas infrastructure construction markets as CCCC's great opportunities for its further development. Though the interviewees are not in favor of the current economic situation, they hold that the three factors of the opportunities with positive influence on the development of CCCC make significant contributions.

(4) Scores of threats

$$0.35*81 + 0.5*85 + 0.115*64 = 78.21$$

The biggest threat lies in the increasing risks for overseas markets, fierce competition in international project markets, the improving non-trade barriers and overseas markets of other huge construction enterprises of the country. As a matter of fact, since the scores of threatens are not as high as those of opportunities, the threats do not totally offset the positive influence

of the external environment. However, considering the scores of the threats, its negative influence should still not be neglected.

(5) Scores of SWOT

$$86.63* 0.31 + (-62.8)*0.17 + 84.73*0.24 + (-78.21)*0.28 = 16.25$$

The total score of SWOT framework reaches 16.25 by setting the scores of weakness and threat negative and estimating the scores of strength, weakness, opportunity and threat with the weight sum. We obtain the general score of 16.25. The conclusion can be drawn based on the above scores as following. First, the combination of the internal environment and the external environment is favorable to the development of CCCC according to the positive total scores. Second, though the total score is positive, the value is too low. The positive effect is largely offset by the negative one. Therefore, CCCC should make full use of the existing strengths and opportunities and evade the weaknesses and threats for further development.

2) Evaluation of strategies of SO, WO, ST and WT

The scores of strength, weakness, opportunities and threats respectively are 86.63 (represented by point A), 62.8 (represented by point B), 84.73 (represented by point C) and 78.21(represented by point D). The composite score of strength and weakness is 23.73 and the composite score of opportunities and threats is 6.52, which is represented by point F. From the above data, the conclusion can be drawn that the overall effect of the internal environment and external environment is positive. The potential development is quite promising in the future under the background of the industrial prospect of the construction. However, we should notice that weakness and threat are marked with such high negative numerical value. The negative factors resulting from the weaknesses and threats largely offset the positive factors from the strengths and opportunities.

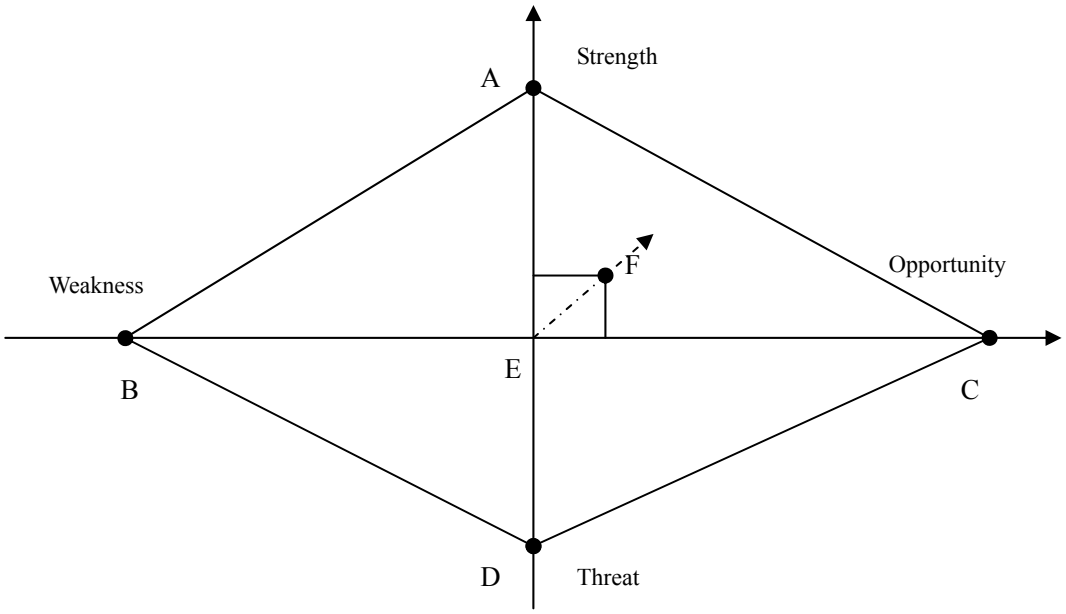
The scores of the strategies of SO, WO, ST and WT are respectively 85.68, 73.76, 82.42 and 70.505. SO strategy is the most advantageous one compared with the other three strategies. It can be seen in evidence based on the above results that CCCC should make full use of its internal strength and external markets' opportunities to enter the overseas market.

3) Conclusion

We adopt Saaty's AHP method to structure the weight system of SWOT analysis of CCCC in this chapter. The system is based on the data according to the first questionnaire. Meanwhile, we apply the data of the second questionnaire to the evaluation of the strategies of SO, WO, ST and WT. The conclusion is that SO strategy is the most advantageous one for CCCC. Based on the above quantitative analysis, we have a clear understanding of strategic

positioning of CCCC's internationalization operation, which lays the foundation of the latter analysis of market entry mode selection.

Figure 14 "Quadrilateral" analysis of CCCC's Strategies



4.3 Summary of This Chapter

First, the industry environment for internationalization operation of construction enterprises is analyzed and the SWOT analysis framework is established. According to the theory of value chain, the internal condition of enterprise is deconstructed, which gives rise to four strategic choices for enterprise development. Following is the elaboration of the conception and classification, internal attributes and influential factors of market entry mode selection for internationalization of construction companies. Based on the above analysis, the author focuses on CCCC, the typical representative of giant Chinese state owned construction companies and constructs the SWOT framework and weight system, based on which the strategic positioning for CCCC is established.

Chapter 5: Analysis on the Market Entry Mode Selection of CCCC: Taking the Angola and Kenya Market as an Example

Based on the analysis of industry environment of construction companies and strategic positioning of CCCC, three hypotheses on internationalization operation of giant state owned construction companies are proposed, on which the analysis framework on market entry mode selection is constructed. Then the example of CCCC's entry into Kenya and Angola is used to verify the applicableness and effectiveness of the theoretical framework.

5.1 Theory Hypothesis and Analysis Framework on Market Entry Mode Selection of Giant State Owned Construction Companies

The reform and opening up starting from 1970s has made China transform from planning economy to market economy gradually. As the main player of planning economy, state owned enterprises were the major object of economic reform. Since 1990s, the reform of state owned enterprises commenced with a view to deepening the reform of market economy system, alleviating the financial burden of the nation and improving the competitiveness of enterprises. In this process, a large number of enterprises were privatized. Meanwhile, considering the national economic security, mergers and reorganization were conducted among the major industries under the guidance of SASAC to form giant enterprise group, aiming at creating enterprise groups with international competitiveness and realizing part of the national strategy of globalization development.

With support of national policies, the large state owned enterprises develop rapidly and gradually get access to the rights of market control and monopolistic pricing, resulting in super-normal profit in domestic market. In terms of financing, the banks have provided them with lots of preferential loans due to their government background and super-normal profit. Taking the financing opportunity, these companies made a series of mergers and acquisitions of key upperstream and downstream enterprises, got listed as a whole and enriched the capital, thus expanding their business scope and scale, occupying major market share in China and laying a solid foundation for "going global" and competing with multinational companies.

Despite the advantage of business scale, compared with multinational companies, the large state owned enterprises still have a lot to improve in terms of technology, brand,

management, logistics and talents. Meanwhile, they cannot get access to the right of market control and monopolistic pricing at overseas market without the policy support. Therefore, there are few state owned enterprises to invest or conduct merger and acquisition overseas, and some tried but failed. It is necessary for the enterprises to have rich international experience and rational market risk evaluation before they enter overseas market successfully, but at the same time, the guidance of national policy for "go global" are equally important. Through intergovernmental trade agreement and economic cooperation framework, enterprises can effectively avoid risks in overseas investment and expand financing channels and reduce financial cost with financing platform built by government policies and commercial banks.

Seen from the growing path of the existing transnational corporations, the famous companies in the emerging economies such as Korea, Japan and India have experienced the same development history as giant Chinese state owned enterprises have, for example, Samsung and Hyundai Motors have received strong support from Korean government. For the emerging economies, the state government's support is absolutely necessary for the companies to carry out globalization strategy and compete with the international transnational companies with high industrialization, which, after all, have been in the international market for some decades and gained advantages in various aspects including technology, management and marketing and so on.

Under such national background, giant state owned enterprises play a dual role of realizing both their own strategies and the state strategies, and in the meantime, they need to pay attention to both the economical and social factors of the market. Therefore, the entry mode selection of overseas market of giant state owned enterprises might not be explained with the traditional international trade theory and market entry mode based on the assumption of perfectly competitive market.

Based on the above analysis and the necessity to explain the specific characteristic of the market entry selection of giant Chinese state owned enterprises, we have made the following theoretical assumptions for the entry mode selection of internationalization management market of giant Chinese state owned companies.

Hypothesis I: The policy guidance of enterprises going global is an important way for the state to participate in world economy and realize its globalization strategy.

Hypothesis II: With policy support, giant Chinese state owned enterprises have competitive advantages in funding and risk exposure compared to other transnational

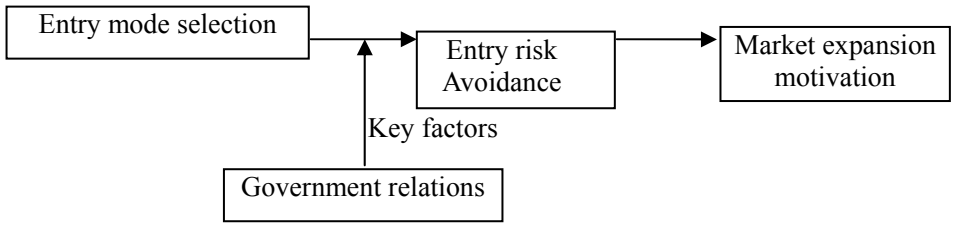
companies, which represents the integration of company strategy and state strategy.

Hypothesis III: With the rapid economic development of China, the foreign trade surplus is expanding constantly and foreign exchange reserves are increasing substantially. To preserve and increase the value, it becomes therefore necessary to invest in overseas market to transform the value into state strategic assets.

According to the previous research literature on market entry modes, the companies adopting internationalization management are mainly out of two motives, to learn technologies and to expand market. And most of these literatures mainly focused on research on the market entry mode selection for the companies aiming at market expansion and put forward stage theories for the entry mode selection for internationalization market. They adopt low-control and low-risk product export or license agreement at the beginning, and as the experiences in internationalization increases, gradually adopt high-control and high-risk modes such as joint venture, merger and acquisition or greenfield investment. It is a process that the degree of market penetration is gradually deepened, and a process that is supported and proved by the practice of multinational companies of developed countries entering Chinese market. With the development of economic globalization, Chinese enterprises begin to step into the international market to conduct transnational operation. However, the internationalization management of Chinese enterprises is generally to learn technologies. Gao Xia and Jing Runtian (2009) mentioned in their research that because the companies ignored the influence of cultural conflict on knowledge integration and organizational performance during the process of technological learning based market entry mode selection, they failed in the enterprise internationalization. As for the giant Chinese state owned construction enterprises, their industrial characteristics have determined that they should be different from typical manufacturing industry in the direction, key fields and approach of internationalization, and their entry mode selection of overseas market, especially the market expansion oriented African market entry, shows a unique feature. This thesis, starting from the actual background, takes the influence of governmental relations on the risk avoidance of the market entry mode selection of company internationalization management into consideration. Government relations thus become an important factor on the risk assessment and mode selection of company entering overseas market.

Based on the above analysis and theoretical assumptions, we have constructed a theoretical model on the market entry mode selection of giant Chinese state owned construction enterprises, as shown in Figure 15 below.

Figure 15 Model of the market entry mode selection of giant state owned construction enterprises



Under the analytical frame of this theory, the overseas market management of giant Chinese construction companies shows unique stage characteristics.

As quoted from a senior manager of the state owned enterprise, there are three stages for state owned construction enterprises to enter the overseas market: going global, going in and coming out. “Go global” means that the enterprises enter the overseas market with a low-risk mode with the help of government relations and may not necessarily aim at profit maximization. Then the enterprises fully understand the politics, economy, culture and other external environment of the target country and gradually acquaint themselves with the operation mode of the local market to accumulate internationalization experiences. “Going in” means to, after being familiar with the target country and gaining a foothold there, actively participate in market competition with local enterprises and transnational companies, complete projects with high quality and high efficiency, set up brand reputation, expand influence, display responsible image, spread its unique enterprise culture and gain recognition and praise from local government and residents. “Coming out” means to enter the markets of its neighboring countries with similar cultural and political background under the condition that the company has rooted deeply into the overseas market and been in good localization management.

With the implementation of the above three stages of market entry, the enterprises can effectively lower the external risks and enter the overseas market smoothly. In the following chapters, the author will take CCCC, a representative of giant Chinese state owned construction enterprises, as an example to analyze the overseas market entry mode selection of giant Chinese state owned construction companies using the theoretical framework mentioned above.

5.2 Analysis on Market Environment of Angola and Kenya

5.2.1 Analysis on Investment Environment of Angola and Kenya

Located in Sub-Saharan Africa, Kenya and Angola belong to tropical savanna climate with distinct rainy and dry seasons in the whole year. Kenya has beautiful natural scenery with East African Rift Valley and is rich in tourism and forest resources, while Angola is scarcely populated with rich resources in petroleum, natural gas and mineral and is the second largest petroleum exporting country in Africa. Both countries were once colonized. Influenced by western culture, they have formed a multi-cultural system and their customs and culture influenced by those of the Western. AIDS and other epidemic diseases rage at the countries, so the average life span there is low. Their governments have invested little into education and medical treatment and public health. The public infrastructures are behind and the residents have low educational level. The illiteracy rate of Angola in 2005 was up to 33%. The public orders in both countries are poor generally and even severe in some areas and serious events are common. The following Table 27 is a comparison of the situations in the two countries.

Table 27 Comparison of basic situations in Kenya and Angola

		Kenya	Angola
Geographic conditions	Geographic location	In the east of Africa, covering an area of 582,650 km^2	In the southwest of Africa, covering an area of 1,246,700 km^2
	Capital	Nairobi (with a population of about 3.1 million)	Luanda (with a population of about 5 million)
	Natural resources	Tourism, mineral resources (mainly soda ash and fluorite) and forest	Rich petroleum, natural gas and mineral resources, the second largest petroleum exporting country of China.
	Climate	Tropical savanna climate with dry seasons from March to June and from October to December	Tropical climate with dry season from May to October and rainy season from November to April.
	Population distribution	40.05 million (population structure: age 0-14, 42.3%; age 15-64, 55.1%; above 65, 2.6%)	15 million (the people aged from 0 to 44 accounts for 90.6%; and the employed population 40% of the population with sufficient labor capacity)
Political conditions	Political system	Presidential system and multi-party system	Republican and multi-party system (major parties: MPLA (Popular Movement for the Liberation of Angola) and UNITA (National Union for the Total Independence of Angola))

	Diplomatic relations	Established diplomatic relations with China in 1963; signed economic and technological cooperation agreement in 1964; and the cooperative relationship was deepened in 2010.	Established diplomatic relations with China in 1983; attended Beijing Summit on China-Africa Cooperation in 2006; and established strategic partnership in 2010.
Social and cultural conditions	Nationality	Kikuyu 21%, and Luhya 14%	Ovimbundu 38%, Mbundu 25% and Bakongo 25%
	Language	Official languages: Swahili and English	Official language: Portuguese
	Religion	Christian 78%, Islam 10%	Roman Catholic 49%, Christian 13%
	Custom	Multi-culture (integrating Swahili culture, western culture and Islamic culture), following English practices	Mainly adopt western rules and customs
	Education and medical treatment	The annual education expenditure accounts for 20% of government budget. Primary and middle school enrollment are 92.9% and 35.8% respectively. 85.1% of the population above 15 years old is able to write and read in 2010. The expenditure in health in 2009 took up 4.3% of GDP. Major epidemic diseases include: AIDS and tuberculosis	The illiteracy rate in 2005 was 33%. The expenditure in public education in 2009 was 2.8% of GDP. Free medical treatment. The medical expenditure in 2009 was 4.6% of GDP. The average life span is 40-43. Major epidemic diseases include: malaria, AIDS, leprosies, sleeping sickness, tuberculosis, cholera and meningitis
	Labor union	Central Organization of Trade Union, Maendeleo Ya Wanawake Organization and Kenya Lawyers' Union	The government is predominant in economic and social life. The labor unions and non-government organizations have little influence.
	Public order	Since 1990s, the security situation in Kenya has deteriorated. The public order is poor in general and armed robbery and serious crimes are common.	Since 2009, the public order in its capital Luanda has become extremely worse. Kidnap, ransom and gun robbery are common.

Source: Guidebook to the Foreign Investment by Country

Judging from the economy development situation of the two countries, since the end of civil war in 2002, Angola government had focused on post-war reconstruction. With strong support from petroleum economy, its economy has grown very fast. In spite of global crisis, Angola's GDP keeps high-speed development with average annual growth rate up to 11.1% from 2001 to 2010. Especially from 2005 to 2007, average annual growth rate of GDP in Angola reached 20%. According to IMF forecast, Angola's economy growth rate reached

7.8% in 2011, and 10.5% in 2012. The growth rate in Angola is not only higher than world average level (4.5% in 2012), but also higher than that of emerging markets (6.5%), Saharan Africa (5.5% in 2011, 5.9% in 2012) and Petroleum Exporting Countries in Africa (6.9% in 2011, 7% in 2012). Compared with high-speed growth in Angola, Kenya's economy grows slowly. Except from 2004 to 2007, the situations in other years were common that growth rate of GDP kept around 5% from a long period, and there is insufficient powerful economy engine inland. As global financial crisis influences fade, Kenya's economy will gradually resume growth and become the bellwether in East Africa economy. The GDP growth rate in 2010 was 4.1%, and it was estimated that it would reach 6% in 2011, as shown in Table 28.

From economy development level, Angola's GDP per capita is six times that of Kenya, and it was 8 times that of Kenya in 2009. The income gap between both countries is widening. Angola's economy development has already reached standard of moderately developed countries, but that of Kenya was still under standard of developing countries. In Human Development Report released by the UN in 2009, Kenya's human development index ranking was very low.

Table 28 Macro-economy situation comparison between Angola and Kenya

	Angola				Kenya	
Year	GDP ($ 100 million)	Growth rate of GDP	GDP Per capita ($)	Growth rate of GDP Per capita	Growth rate of GDP	GDP Per capita ($)
2003	453.42	5.53%	3116.93	2.53%	2.9%	544
2004	517.35	14.10%	3455.168	10.85%	4.9%	594
2005	600.14	16.00%	3893.954	12.70%	5.8%	645
2006	734.73	22.43%	4631.437	18.94%	6.4%	716
2007	909.74	23.82%	5571.327	20.29%	7.0%	778
2008	1053.45	15.80%	6267.734	12.50%	1.6%	786
2009	1070.11	1.58%	6181.391	-1.38%	2.6%	748
2010	1143.43	6.85%	6412.541	3.74%	5.6%	796

Data source: IMF (in accordance with the purchasing power parity), Kenya National Bureau of Statistics

From comparative analysis of other main economy indicators, Angola's industry structure mainly consists of manufacturing and service, and agriculture accounts for a small proportion. Service and agriculture industries are dominant in Kenya.

In terms of inflation rate, after the end of civil war, Angola's domestic inflation rate decreased year by year and tended into stability. In 2005, Angola's inflation rate reached 18.5%. By 2010, Angola's average inflation rate was 14.5%. It's estimated to be 14.6% in 2011 and 12.4% in 2012.

In the aspect of financial revenue, there is huge gap between both countries. Angola's financial revenue is 4 times that of Kenya with slight finance surplus, and the total amount of foreign debt is about twice that of Kenya. Because of the growth of global oil price and crude production, Angola owns a large amount of foreign reserve. Therefore, due to the demand of postwar reconstruction, a large number of government expenses are put into infrastructure construction market in Angola, and the project contracting market size is huge with growing tendency, as Table 29 in the following.

Table 29 Comparison of major economic indicator between Angola and Kenya

	Angola	Kenya
Industrial Structure	Agriculture accounts for 9.6%; manufacture 65.8% and service 24.6% (2009)	Agriculture accounts for 22.1%; manufacture 17.4% and service 60.6% (2009)
Financial income and expenses	Financial income 40.4 billion US dollars; financial expenses 37.4 billion US dollars (2009)	Financial income 9.71 billion US dollars; financial expenses 12.57 billion US dollars; deficit 2.87 billion US dollars(2010)
Foreign exchange reserves	1.67 US dollars(2010 year-end)	Foreign exchange reserves 3.94 billion US dollars(2010 year-end)
Public debt	By March 2011, Angola government's public debt was 26.1 billion US dollars, about 30% of GDP as current expected.	
Foreign debt balance	By March 2011, total foreign debt was 15.1 billion US dollars.	Foreign debt balance was 6.65 billion US dollars.
Inflation	15.13% in 2010, control target is 12% in 2011	Foods and fuel oil prices are relatively stable, and inflation rate reduced from 9.2% in 2009 to 4.1% in 2010.

Data source: Guidebook for Foreign Investment by Country

As main countries in Sub-Sahara Africa, China has established long-term economic cooperation relationship with governments of Kenya and Angola.

Chinese government and enterprises actively take part in post-war reconstruction in Angola, and bilateral economic and trade cooperation have been developed fast. Since 2006, Angola has been the first trade partner of China in Africa and the second crude supplier of China in the world for four years. During this period, China imported 26.6 million tons crude oil from Angola, second only to Saudi Arabia. In 2010, the volume of trade between Angola and China was 24.8 billion US dollars, an increase of 45.4% year on year, among which Chinese export was 2 billion US dollars, reduced by 16%; and that of import was 22.8 billion US dollars, growth by 55.4% year on year. China mainly imports crude from Angola, and mainly exports electromechanical equipment, construction materials and daily necessities. China-Angola trade is mainly reflected by China's trade deficit, and China is mainly as the commodity importing country.

The growth rate of trade between China and Kenya in recent years has exceeded the growth rate of contemporary China's foreign trade and the growth rate of trade between China and Africa. In 1995, bilateral volume of trade exceeded 100 million US dollars for the first time. In 2010, bilateral volume of trade between China and Kenya was 1.83 billion US dollars, an increase of 39.8% year on year, reached a new record in history. China ranked eleventh in Kenya's goods import trade, but it had quickly ranked first in 2010. Now China has become the second trade partner of Kenya. In 2010, Kenya's volume of export to China was 40 million US dollars with an increase of 32.4% year on year; its volume of import from China was 1.79 billion US dollars with an increase of 39.9% year on year. Kenya mainly exports to China waste copper, metallic mineral ore, cotton, sisal and leather; it mainly imports from China equipment, communication equipment, construction material, automobile and motorcycle, textile, clothes and daily necessities. The trade between China and Kenya is mainly embodied by China's surplus, and China mainly acts as the commodity exporting country. The detailed data about bilateral goods volume of trade between China, Angola and Kenya is shown in Table 30 below.

Judging from the economic structure, Angola's pillar industries are petroleum and diamond exploration. It is the second oil-producing country in Africa. In 2007, oil revenues accounted for 56% of GDP. The growth of GDP mainly depends on export of crude oil. Due to the global financial crisis in 2007, global crude oil demands shrank, which caused the reduction of the growth rate of GDP. In 2009, GDP per capita showed negative growth. After

2004, Angola's civil war ended, and it needed to be reconstructed. Its construction industry market, such as Infrastructure, civil housing, was great. In 2007, the production of construction industry accounted for 4.9% of GDP.

Table 30 Comparative analysis on bilateral trade volume between China, Angola and Kenya

Year	Bilateral goods trade volume between China and Angola（unit: $ 100 million）						Bilateral goods trade volume between China and Kenya（unit：$100 million）			
	Total trade volume		China's Export		China's Import		Total trade volume	China's export	China's import	China's surplus
	Volume	Growth rate	Volume	Growth rate	Volume	Growth rate				
2003	23.52	104.8	1.46	137.8	22.06	102.9	2.504	2.417	0.087	2.33
2004	49.11	108.8	1.94	32.7	47.17	113.8	3.658	3.488	0.17	3.32
2005	69.55	41.6	3.73	92.6	65.82	39.5	4.746	4.569	0.177	4.393
2006	118.27	70.1	8.94	139.9	109.33	66.1	6.455	6.210	0.244	5.966
2007	141.20	19.0	12.31	38	128.89	18	9.590	9.309	0.281	9.028
2008	253.11	79.3	29.30	138.2	223.82	73.7	12.51	12.16	0.35	11.81
2009	170.62	-32.6	23.86	-18.9	146.76	-34.4	13.07	12.77	0.30	12.47
2010	248.0	45.4	20.0	-16.0	228.0	55.4	18.25	17.86	0.39	17.47

Data from: Ministry of Commerce of China, National Statistics Bureau of Angola and the Customs Statistics Yearbook of China.

However, Kenya is a typical agriculture and tourism country. Agriculture and tourism are pillar industries in its national economy. Foreign exchange earnings created by agriculture accounted for over 46% of total export. By virtue of excellent geographic location, domestic and foreign transportation developed very fast, as Table 31 below.

In terms of project contracting and labor cooperation, China's enterprises signed 861 new contracts on contracting projects and labor cooperation with Angola in 2010 with contract value of 3.732 billion US dollars, in which contracting project contracts was 3.58 billion US dollars, and labor cooperation contracts 152 million US dollars. In 2010, the turnover was 5.097 billion US dollars, among which contracting project turnover was 4.964 billion US dollars, and labor cooperation turnover was 133 million US dollars, as Table 32 below.

Table 31 Comparison of key industries between Angola and Kenya

Angola		Kenya	
Mining industry	Oil and diamond exploration are pillar industries. In 2007, oil revenue made up 56% of GDP. It's the second oil producing country. The annual production of diamond occupied 12% of global market.	Agriculture	Agriculture is pillar industry of its national economy. The production of agriculture nearly took up one third of GDP. Foreign exchange earnings created by agriculture accounted for over 46% of total export.
Agriculture	Natural conditions for agriculture development are good, but it still can't realize self-sufficiency in grains.	Tourism	As one of national pillar industries, tourism is moderately developed. In 2009, its production contributed to 2.8% of GDP.
Fishing	Close to the Atlantic; rich in fishing resources	Industry	Most developed in East Africa. In 2009, its production occupied 9.5% of GDP.
Construction industry	During postwar reconstruction period, building industry market, such as Infrastructure, civil housing, was great. In 2007, the production of construction industry accounted for 4.9% of GDP. Construction contractors from the world gathered here, and market competition pressure was relatively bigger.	Transportation	Geographic location is excellent. Port of Mombasa is the largest port in the east central Africa. Transportation develops fast.

Data source: Guidebook for Foreign Investment by Country

In 2010, China's enterprises signed 137 new contracts on contracting project and labor cooperation with Kenya with contract value of 1.07 billion US dollars, in which contracting project contracts was 1.07 billion US dollars and labor cooperation contracts was 680 thousand US dollars. In 2010, accomplished business revenue was 887 million US dollars, among which contracting project turnover valued 885 million US dollars.

Angola's construction market size is larger than that of Kenya, and it keeps increasing.

Table 32 China's enterprises' contracting business scale in Angola
(unit: a hundred million US dollars)

Year	New contract value	Total contract value	Turnover	Total turnover
2003	1.7	3.5	0.4	0.7
2004	4.5	8	0.8	1.5
2005	13.4	21.3	3.1	4.6
2006	40.8	62.1	10	14.6
2007	56.7	118.8	11.9	26.5
2008	69.9	188.7	32.7	59.2
2009	37.83	226.53	49.61	108.81
2010	38	264	51	160

Data source: The economic and commercial counselor's office of the Chinese embassy in Angola

From the above comparative analysis between Angola and Kenya, we can see that Angola's overall economy development and economy growth potential are larger than those of Kenya. However, development in many aspects such as education, medical care, and social system of both countries still lag behind. Because Angola has been influenced by long-term civil war, postwar Angola has a large demand for public infrastructure, resulting in the size and profits of Angola's project contracting market much larger than those in Kenya. In terms of the support of petro-economies, it's estimated that in the coming 20 years, Angola will continue to maintain powerful economic growth, and Angola's attractiveness of investment will largely increase, providing broad room for CCCC's development in Angola's project contracting market.

However, Kenya is located at the gateway of East Africa. Since Kenya's independence in 1963, its government has been in stability. It's one of the countries with most stable political situation and best economic foundation in the south of Sahara Africa. By comparison, Kenya owns relatively complete investment regulations. There are over 30 laws and regulations to protect foreign investors' interests. However, because agriculture and tourism industries are dominant in economy, its economy growth potential is limited, and the size of domestic project contracting market is small. The differences in investment environments between both countries, also determines the different modes of CCCC's entry into Angola and Kenya's markets.

5.2.2 Analysis on the Project Contracting Market of Angola and Kenya

As the two major countries in sub-Saharan Africa, Angola and Kenya have great demand for infrastructure construction. The enterprises involved in domestic project contracting market competition mainly include local companies, foreign companies and Chinese companies. The main mode of domestic project contracting market is classified into five categories. See Table 33 below.

Table 33 Main mode classification of project contracting market of Kenya and Angola

Main mode of project contracting market of Kenya and Angola	Energy resource for repayment or package framework project between governments
	Government funded investment project
	Projects funded by International Financial Organizations, including World Bank, European Bank and African Development Bank
	BOT project
	Enterprise investment project

(1) Energy for repayment or package framework project between governments

Due to rich resources such as petroleum, diamonds and iron ores, Angola government is short of mining capability and desperately needs money for the infrastructure construction, which therefore promotes the cooperation between governments. Only for Chinese government, a key concern at present is the first and second phase projects carried out by the Export and Import Bank of China and Angola government; all these projects are short-term EPC projects and Chinese government controls the funds and receipt of project funds is guaranteed with little risk.

(2) Government funded investment projects

All these projects are under the control of Public Works Department and Reconstruction Office, accounting for a large proportion in current project contracting market. In order to complete post-war reconstruction as soon as possible, Angola government invests large-scale funds into the infrastructure construction every year. For these projects, government often signs tens of millions dollars contract agreement with the contractor at a time, but due to the impact of government funds, project implementation is divided into different stages, which causes a higher randomness in concrete cooperation process. This kind of project has higher risk, especially for highway and airport projects which need higher equipment input.

Therefore, other similar projects should be supportive of each other so as not to cause the slow work and stagnation of labor and equipment.

(3) Projects funded by World Bank and other international financial organizations

Terms and conditions of FIDIC contracts are strictly executed in all these projects. Risks can be avoided when the contract is seriously executed.

(4) BOT project

Due to the war for more than twenty years, many original hydropower stations have been completely paralyzed and the government has no ability to repair; and Angola is seriously lack of electricity, but possesses large amount of hydroelectric resources, which impose a burden on Angola government to invest in new construction projects. Repayment period of this financing project, however, is relatively long, and the government recovery rate of utilities is very low. Therefore, investment risk is big.

(5) Enterprise investment projects

The main purpose of such projects is to assist local oil companies and some other enterprises to build plants and bases locally. For example, Coca-Cola Company's new plant project, ICD container yard project and Negage and N'Zeto brickyard project under construction belong to this category. Contract of this project should be signed with caution, and it is necessary to fully understand the production and operation conditions of cooperative enterprise before the contract is signed. Once the contract is signed, it is advisable not to undertake the construction with advance payment.

5.3 Case study on CCCC's entry into Angola and Kenya

5.3.1 Analysis on CCCC's Mode of Market Entry into Angola and Kenya

China and Angola established their diplomatic relations in January 1983. Since then, the relations between the two countries have been developed continuously, and a bilateral trade agreement between China and Angola was signed in June 1984. Bilateral economic and trade cooperation has developed fast. Due to the outbreak of civil war in Angola, their relations fell in stagnation and did not recover until the end of civil war in 2003 when the Framework Agreement on Special Arrangements for Economic and Trade Cooperation Between China and Angola was signed by the Ministry of Commerce of the PRC and the Ministry of Finance of Angola. Premier Wen Jiabao paid a visit to Angola in 2006 and issued a joint communiqué. Since then, China and Angola have begun all-round cooperation in economy, judicature,

hygiene, agriculture and other fields. The main events related to economic and trade cooperation mechanism development between China and Angola are set forth in Table 34. Through a series of economic and trade cooperation, Angola has become China's biggest trade partner in Africa and the second largest crude oil supplier in the world for four years since 2006.

Table 34 Main events of economic and trade cooperation mechanism between China and Angola

Important dates	Main events
January 1983	China and Angola established diplomatic relations.
June 1984	China and Angola signed the bilateral trade agreement.
October 1988	Economic and trade joint committee agreement was signed to be established by China and Angola.
November 2003	In November 2003, *Framework Agreement on Special Arrangements for Economic and Trade Cooperation Between China and Angola* (namely, package cooperation in petroleum, credit and economic and trade between China and Angola) was signed by the Ministry of Commerce of the PRC and the Ministry of Finance of Angola. In addition, package cooperation joint working group mechanism between China and Angola was established.
June 2006	Premier Wen Jiabao was on a visit to Angola and issued a joint communiqué. China and Angola signed several agreements and legal documents, which involved economic and technical cooperation, judicature, hygiene, agriculture and other fields.
May 2011	Labor Service Cooperation Agreement between PRC and *the Republic of Angola* was signed between the Ministry of Commerce of the PRC and Ministry of Foreign Affairs of Angola.

Data sources: *Guidebook on Foreign Investment by Country*

In terms of contracting market of Angola, due to the sustained civil war, complete laws and regulations on project contracting have not been enacted. Therefore, there are few restrictive conditions on foreign contractors to contract projects in Angola. For the projects funded by World Bank, African Development Bank and other international financial institutions, they just need to meet the restrictive conditions of relevant financial institutions; for projects between governments, it depends on the conditions of loan agreement signed by the two countries. For example, for Chinese government funded projects, the Chinese side should recommend relevant Chinese companies to participate; for Angola government funded

projects, foreign contractors are invited to participate after they register in Angola and obtain the business license issued by relevant government department.

Complete construction standard and regulations have not been enacted in Angola. International bidding and bid invitation modes are used for reference during construction, generally including planning, feasibility study, design, and bid invitation, construction, acceptance check, transfer and other procedures. Consultant and supervision agencies are employed during construction. Acceptance of works is jointly conducted by Owner, consultant and contractor. Project contract serves as a basis of acceptance.

Meanwhile, Angola has experienced rapid economic development after civil war and the market demand for infrastructure construction is still high. Funds invested by government every year have grown continuously. Due to rich resources such as petroleum, diamonds and iron ores, Angola government is short of mining ability and desperately needs money for the infrastructure construction, which therefore promotes the cooperation between governments. In November 2003, Framework Agreement on Special Arrangements for Economic and Trade Cooperation between China and Angola (namely, package cooperation in petroleum, credit and economic and trade between China and Angola) was signed between the Ministry of Commerce of the PRC and the Ministry of Finance of Angola. Moreover, package cooperation of joint working group mechanism between China and Angola was established. In order to further implement the framework agreement signed in 2003, China and Angola signed a 2 billion dollars loan contract in 2004, which is provided by Export and Import Bank of China to Angola government by stages and executed in buyer's credit mode.

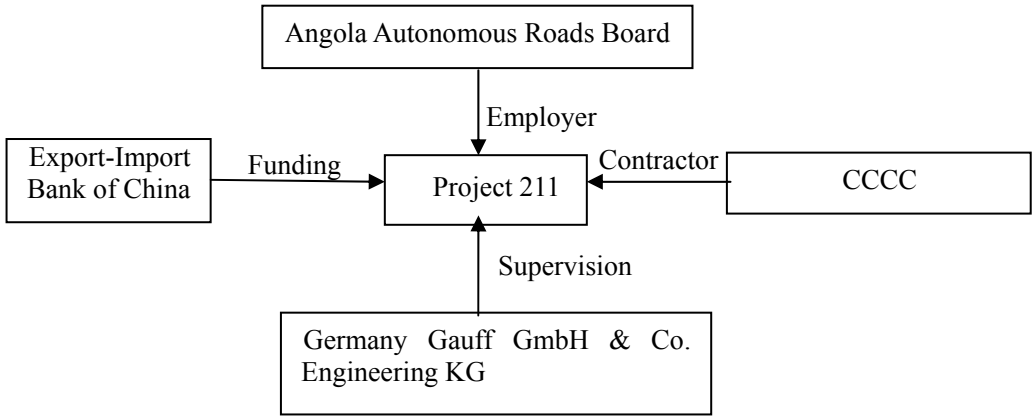
The two characteristics of loan framework between the governments of Angola and China are: 1. Based on state credit of these two countries, cooperation between Angola and China reflects the aid mechanism of China to Angola. China holds indirect investment as foreign aid for a long term. Based on project assistance and the Chinese side taking the initiative, Chinese enterprise implements projects in accordance with domestic standards and then transfers them to the local government so as to lead Chinese enterprises to go global and achieve mutual benefits. 2. As the projects are implemented with preferential buyer’s credit and the Export and Import Bank of China controls project payment right, the project is performed with little risk and no project payment delay exists.

As a large state owned construction enterprise, the going global strategy of CCCC has drawn state attention and has been supported by government policy. In consideration of fast economic growth of Angola and its gradually developed scale of construction market, taking

the opportunity of intergovernmental cooperation agreement, CCCC took part in the signing ceremony of these two governments in 2003 as a member of enterprise representative. During the period of the signing ceremony, the senior management of CCCC made full use of this high-end platform and paid visits to the Commerce Department, the Ministry of Finance, the Ministry of Human Services and other functional departments of Angola. They conducted deep communication with their principal leaders and established an effective communication and cooperation mechanism between government departments of Angola and CCCC.

CCCC entered Angola market officially in 2004. Angola office of CRBC was founded in January of 2005. After its establishment, it commenced to collect information in many ways and positively maintained the relationship with government departments of Angola. As it was just near the end of Angolan civil war, many infrastructures were damaged seriously and demotic transportation and communication conditions were poor while Angola's petroleum was mainly produced in the north. Therefore, establishing a northern transit path became the key point of reconstruction work. Angola named this project as 211 and brought it into the loan framework between Angolan government and Chinese government to use the limited bidding invitation. This project adopts EPC (engineering, procurement and construction) mode. Structural figure of main stakeholders is shown as Figure 16 below:

Figure 16 Structure of main stakeholders of Project 211



At the request of the cooperation framework between Angolan government and Chinese government, competitive bidding was just executed among domestic construction enterprises and the capital was at the disposal of Chinese government. As capital recovery was guaranteed, the market was of little risk and great benefit. Angola office of CCCC immediately submitted this information to the head office and provided detailed project background and requirements. The senior management of CCCC attached great importance to

this opportunity for market entry. Understanding that time was limited while task was important, they convened an internal meeting at the same night and dispatched professional technical engineers selected across the nation among the group to establish project team. Directed by Vice President of CCCC, a professional survey and design team was sent to Angola to perform field research and investigation and project feasibility analysis. Road design plan was done by pooling the expertise and material resources in the shortest possible time. Soon afterwards, senior management of CCCC rushed to Angola, submitted the design scheme to the employer of Angola Autonomous Roads Board and visited all these senior officials of all the departments in charge of infrastructure construction to perform high-end communication for the successful bid of this project. Leaders of Angola Autonomous Roads Board and Department of Public Services spoke highly of the submitted design scheme and admitted that CCCC was highly experienced in international project contracting with profound state background and CCCC was a reliable partner with its efficient project operation, reasonable design and affordable quoted price. With a series of first-phase preparations, CCCC won the bidding for project 211 finally and entered into a contract with Angola Autonomous Roads Board on February 28, 2005, which was the first infrastructure project since its entry into Angola and also the first high-end project of CCCC contracted in EPC mode, attracting much attention of the industry circle. The main part of this project was completed in 2008 and the whole line open to traffic was achieved 5 months earlier than the scheduled construction period. Angola president Eduardo Santos attended the completion ceremony to cut the ribbon and delivered a speech that spoke highly of construction schedule and quality of CCCC and called it the benchmarking project for domestic road construction in Angola, which established a good brand image and reputation for the entry of CCCC into Angola market.

During Premier Wen Jiabao's visit to Angola in 2006, the senior management of CCCC accompanied him, which helped cement the communication mechanism and economic cooperation relationship with the Ministry of Communications, the Department of Public Services and other government functional departments of Angola. A senior leader of CCCC indicated that it was with the help of guidance and support by going global strategy that CCCC was able to enter Angola market immediately. With well controlled schedule and state credit basis, market entry risk was effectively avoided. Risk cost of this entry is very low and is beneficial for CCCC to gather experience of project contracting market, laying a solid foundation for contracting other forms of projects.

Afterwards, CCCC made outstanding achievements in the following years in this field. Besides project 211 in phase I funded with loan of $ 2 billion of Export and Import Bank of China in 2005, CCCC implemented CUN road construction of three cities with $ 500 million additional loan in 2008 and Caxito-Nzeto-Mbanza highway construction and infrastructure construction of the surrounding three cities in Phase II with loan of $ 2 billion in 2008. At present, advance payment of M'Banza Congo civil project of highway and three cities achieved by CCCC in Phase II of Export-Import Bank of China has been in place and construction has commenced. In recent years, the high-level officials in both countries have paid visits frequently and economic and trade cooperation has been increasingly enhanced. China provided preferential loan of 6 billion dollars for Angola last year. The aforementioned favorable news provides beneficial conditions for CCCC to enter Angola market with the government framework and expand the market scale.

After successful entry into project contracting market of Angola with the help of government framework and a firm footing, CCCC commenced to take part in the competition of bidding projects of Angola. Compared with government framework projects, the market competition of bidding projects is more fierce and foreign companies and local companies are engaged in bidding besides Chinese companies. Making use of its low manpower cost, CCCC fully performs project feasibility assessment and has contracted a series of projects for the subsequent development. See Table 35 for details.

Table 35 Projects contracted by CCCC in Angola

	Name of project	**Total contract value**	**Funding source**	**Mode of project**	**Construction period**
Accomplished projects	Project 211	216 million dollars	$ 2 billion loan framework entered by Angola and China in 2004	EPC	Dec. 2005-Jun. 2009
	VM project	44.806 million dollars	investment of Angolan government	Construction contracting	Nov. 2005-Dec. 2007
	CUN highway project of three cities	56.336 million dollars	Loan of Export-Import Bank of China under loan framework between Angola and China	Construction contracting	Dec. 2009-Jan. 2011

	Caxito/N'Zeto/M'Banza Congo road emergency repair	9.7955 million dollars	investment of Angolan government	Construction contracting	Jan. 2008-Jan. 2009
	Conduril bituminous pavement surfacing	12.167 million dollars	Conduril Company	Construction contracting	Oct. 2008-Jan. 2009
	Machinery trade project	39.9894 million dollars	Highway Administration of Angola	Plant-equipment -procurement	2007-Feb. 2008
	Phase II NT section road reconstruction of Export-Import Bank of China	63.907 million dollars	Loan of Export-Import Bank of China under loan framework between Angola and China	Construction contracting	Jan. 2009-Aug. 2011
	Phase II MT section road reconstruction of Export-Import Bank of China	96.0931 million dollars	Loan of Export-Import Bank of China under loan framework between Angola and China	Construction contracting	Jan. 2009-Aug. 2011
	NJ project	79.616 million dollars	investment of Angolan government	Construction contracting	May. 2008-May 2010
	OH project	47.564 million dollars	investment of Angolan government	Construction contracting	Sep. 2007-Jul. 2009
	880 bridge project	29.9972 million dollars	investment of Angolan government	Construction contracting	Jul. 2007-Jul. 2009
	Ondjiva municipal road reconstruction	10.043 million dollars	investment of Angolan government	Construction contracting	Apr. 2010-Jul 2011
	Phase I of Ondjiva flood control works	48.6869 million dollars	investment of Angolan government	Construction contracting	Dec. 2009-Jul. 2011
	MM project	109 million dollars	investment of Angolan government	Construction contracting	Oct. 2007-Jul. 2010
	SOYO-CABINDA feasibility study (Phase I)	49.5016 million dollars	investment of Angolan government	Design consulting	Mar. 2008-Sep. 2008

Projects under construction	CCM project	53.5124 million dollars	investment of Angolan government	Construction contracting	80.1% of the contract value achieved
	Phase II CN section road reconstruction works of Export-Import Bank of China	0.501 billion dollars	Loan of Export-Import Bank of China under loan framework between Angola and China	Construction contracting	
	UM project	255 million dollars	investment of Angolan government	Construction contracting	58.9% of the contract value achieved
	Cabinda university project	109 million dollars	investment of Angolan government	Construction contracting	63.33% of the contract value achieved
	Operational area construction of Maquela do Zombo airport	6.9378 million dollars	investment of Angolan government	Construction contracting	32.6% of the contract value achieved
	Ondjiva-Santa Clara road project	95.5895 million dollars	investment of Angolan government	Construction contracting	7.2% of the contract value achieved.
	M'Banza Congo urban infrastructure project	57.491 million dollars	Loan of Export-Import Bank of China under loan framework between Angola and China	Construction contracting	
	Cuimba urban infrastructure project	41.0361 million dollars	Export-Import Bank of China	Construction contracting	Pending
	Noqui urban infrastructure project	47.305 million dollars	Export-Import Bank of China	Construction contracting	Pending
	Benguela Hall of Justice	73.372 million dollars	investment of Angolan government	Construction contracting	Not implemented

CCCC has signed 25 projects in Angola, including 15 completed projects and 10 projects under construction, and there are five projects with contract value exceeding one hundred million RMB. In terms of the project funding source, 16 projects were invested by Angola Government, 8 projects with the loan framework between China and Angola and 1 invested by the company in Angola. In the viewpoint of the project contract mode, there were 22 construction projects, 1 EPC project, 1 plant and procurement project and 1 design consulting project.

Compared with Angola, China and Kenya established diplomatic relationships as early as December 14, 1963 and signed Economic and Technical Cooperation Agreement, Trade Agreement and Agreement on Protection of Investment, and set up the joint bilateral economic and technical committee mechanism. In general, the trade between China and Kenya has developed quite well.

In recent years, Kenya Government has gradually invested greatly in infrastructures, such as roads. The total road length in Kenya is 160,886 kilometers, in which the road of 61,945 km is with various grades, 98,941 km is without any grade and 11,197 km are bituminous pavements. In the future five years(2010-2014), Kenya Government plans to invest 534.6 billion Kenya Shillings(about 6.7 billion U.S. dollars) in road construction, mainly including the repavement of 4,800 kilometers of bituminous roads, repair of 3,500 kilometers of bituminous roads and pavement of 5,500 kilometers of regular roads into bituminous ones.

Meanwhile, with the expansion of Kenya's project contracting market, the competition is increasingly fierce. There are mainly three types of companies competing in the market, namely, local companies, foreign companies and Chinese companies. The local companies, mainly including Kundan Singh Construction, H Young (SA) Co., Ltd., Intex Construction Ltd., Hayer Bishan, are of small-scale but have certain bid price privilege with the policy support of Kenya Government and own the advantage in the bid projects paid in local currency. The foreign contracting companies in Kenya mainly include Hyundai Urban Construction Group (South Korea), Sogea Satum (France), Strabag International (Germany), SBI International (Israel), whose bid prices have been more competitive recently and they often win the bidding of projects funded by the World Bank, European Bank and African Development Bank. While the Chinese companies mainly include SLOF, Wuyi Company, Sinohydro Corporation, COVEC, The Fifth Bureau (Group) Corporation of China Railway, Jiangxi Zhongmei Engineering Construction Co. Ltd, to name a few.

Compared with Angola, Kenya's project contracting market is totally a competitive bidding one in which the bidding system is relatively standard and the social monitory program is rather sound. And the requirements as of the engineering construction process and work acceptance comply with the technical provisions in the construction contract terms of FIDIC. For the international bidding projects, the more companies take part in the bidding, the fiercer the competition is. Therefore, it is difficult to win the bidding. With the pressure of diversified social supervision institutions, slight mistake in the bidding process may result in

the loss of the chance. Especially the rapid economic development of east Africa countries means more and more construction projects, larger contract value, which requires the companies have higher technical level.

Putting agriculture and tourism industries the first, Kenya is lack of mineral resources, such as petroleum and natural gas, with the underdeveloped manufacturing and limited revenue sources of the Government, infrastructure construction is mainly aided by the World Bank, African Development Bank and developed countries such as Europe and America. Therefore, China and Kenya have not cooperated in the government level in the early stages. And CCCC completed Kenya's project by itself and built A 109 national highway through winning the bid.

The section of Mtito Andei - Voi-Bachuma Gate Road (150 kilometers in length), also called Kenya A 109 national road, which commenced in 1998, is known as "China Road" by Kenya citizens. A 109 National Road connects Mombasa, the biggest port in Kenya, and Capital Nairobi, in the northwest leading to Uganda through A 104 and leading to East African countries such as Ethiopia northwardly through A2, being the international traffic "lifeline" collecting Indian Ocean and African hinterlands. The Project team of CCCC evaluated the politics, economy and cultural environment of Kenya, analyzed the economic feasibility and finance feasibility of the project, most importantly it considered the social impact of the project. A leader of CCCC once said, "This highway is one of the most important trunk roads in Kenya. With high grade and great influence, it, to some degree, stands for the international image of Kenya in Africa and its social benefits will be far greater than its cost after construction. Thus, we consider not only its economic benefit but also its social value as well as the impact. The success of this project is quite essential for CCCC to access Kenya project contracting market."

CCCC, after some early stage preparations, applied the most advanced road construction technology at that time and completed the highway project with the highest grade, the best quality and the fastest construction speed in Kenya, even in East African region within two and a half years. The then Kenya President Moi praised in the open-to-traffic ceremonial speech, "CRBC, working honestly and faithfully, sets a good example for Kenya's domestic companies. If all the contractors work like Chinese companies, Kenya would develop faster and better." Even the representative of the World Bank praised this highway as "the example of African investment project of the World Bank". On the occasion of 40th anniversary of the establishment of diplomatic relations between China and Kenya, Kenya Government issued

stamps, taking "CHINA ROAD" as theme, to commemorate not only this high-standard highway but also the friendship of the two countries. Today, although tens thousands of cargo trucks run on the road each day, "China Road" is still as new as before, which fully proves the high construction quality of CRBC. CCCC, by building this landmark highway, obtains a solid footing in Kenya and builds a good image and reputation.

Later, CCCC won a series of projects, covering many fields such as highway, port and water supply. The basic information of the main projects is shown in Table 36 below.

Table 36 The basic information of main projects of CCCC in Kenya

Project name	Project mode	Construction time
A 109 National Road (China Road)	Contractor	1998
RD 419 Project (Lanet - Nakuru – Njoro)	Contractor	Oct. 2006
Majy Ya Chumvi-Miritini Road	Contractor	Jan. 2006
Nairobi Northeast Ring Road Project	EPC Project under the bilateral government agreement: 1. Project name: Nairobi Northeast Ring Road Project 2. Investors: Chinese Government and Kenya Government 3. Employer: permanent secretary of Kenya Road Ministry 4. Execution method: executed by CRBC. It was the first project funded by preferential buyer's credit from the Chinese government in Kenya and also the biggest one of this kind, setting an example for future practice.	Jun. 2009
Mombasa No.19 Berth Extended Project	Contractor	Jul. 2011
Nakuru Project 420	Contractor	Oct. 2006
Road Repair Project in Nakuru Urban Area	Contractor	Jan. 2011

Compared with Angola, CCCC's bidding projects in Kenya feature small scale, small contract value and mainly construction contracting.

Nairobi Northeast Ring Road Project, EPC Project under the bilateral government agreement between China and Kenya, was designed, constructed and supervised by CCCC (a turnkey project), with Export and Import Bank of China providing preferential buyer's credit accounting for 85% of the contract value, and the local government invested 15% of the rest of contract value.

This project is the first investment in road construction in Kenya and the biggest one invested by China in the form of preferential buyer's credit.

These projects involve more than seven government authorities of Kenya, such as Department of Water Resources, Department of Road, Department of Energy, Territory Development Department and their branches. CCCC have established good relationship with such authorities as Financial and Taxation Department, Department of Conservation, Labor Union, Immigration Office and Customs.

Through high level contact and communication, CCCC has established mutual trust with Kenya high levels, such as the President, Vice President, Prime Minister and middle-level officials as ministers and permanent secretaries of each ministry. Besides, some design and consulting companies have been invited to participate in the projects and they have played an important role in the competition. CCCC won not only in Kenya the acceptance of owners, consulting engineers, the society and the government but also the affirmation and praise of the Chinese embassy.

Making full use of the resources from government, CCCC has avoided the risks of entry into the market and set up favorable images and reputation with efficient construction progress and excellent construction quality, reflecting its phased market entry strategy.

5.3.2 Characteristics of CCCC's Market Entry Mode Selection

In this chapter, we firstly put forward the three hypotheses of the market entry mode selection for internationalization operation of giant state owned construction enterprises and constitute theoretic analysis framework, and then confirm the efficiency of the theory through the analysis on engineering projects in Angola and Kenya markets by CCCC. Because of its unique geological and social and economic conditions, contracting projects in Africa have the following characteristics: first, the government invests in or take charge of the projects. African countries are in a bad situation for a long time, with backward infrastructure, narrow marketable scale and engineering capital coming from the Word Bank, African Development

Bank and economic assistance and governmental financial revenue from some developed countries such as European and American countries, therefore the engineering projects are in the charge of the government. Second, the project is of high risk. Due to unstable policy, generally bad security situation, backward financial and credit system and comparatively low quality of the public, the risk of operating the project is comparatively high. Third, the project involves many stakeholders. It may involve several construction parties, design parties and financial institutions and may adopt some specific modes including BOT to involve other business principals. Therefore, it is hard to coordinate and it calls for high requirements for bargaining power. Fourth, the competition is fierce. With the improvement of market openness, continual increase of economy, continual expansion of engineering contracting market scale and attraction of the market, fierce competition among Chinese enterprises, local enterprises and foreign enterprises comes into being.

At the fourth session of the tenth national people's congress, Premier Wen Jiabao pointed out that "we will support qualified enterprises in "go global", making overseas investments, conducting international business in conformance with general international practices, and establishing processing centers, marketing and service networks and R&D centers in other countries. We will institute a policy support and service system and improve the mechanisms for coordinating overseas investment and risk management. To successfully reach the previously mentioned internationalization strategy, enterprises should pay attention to the following things for entry mode selection:

(1) Making full use of the project resources under the intergovernmental framework to defuse the business risk in the contractual entry mode

Because of their strong national background, state owned enterprises are supported by governmental policies and have comparative advantages in terms of fund pooling and risk avoidance compared with multinational corporations, which reflects its integration of industrial strategy and national strategy. Therefore, in the process of market entry mode selection, the project resources under the governmental framework should be fully used, which is one of the important factors to successfully permeate overseas market and effectively avoid overseas business risk. Enterprises will be mainly confronted with three types of matters when adopting agreement mode to enter overseas market. First, human resources, mainly refers to public management talents dealing with the government relationship with host countries; second, unsymmetrical information; third, crisis settlement. In addition, the larger the scale of international engineering project is, the more serious the matter exposed

will be. Improper settlement may cause severe results. In responding to those matters, in the process of entering overseas market, enterprises should actively make use of the project resources under the intergovernmental framework as their opportunity and starting point, thereby lowering entry risk of overseas market.

(2) Making full use of their own price competitive advantages and set up good brand image and reputation with their effective construction progress and excellent construction quality.

In the competitions for bidding projects, Chinese enterprises' offers are usually lower than other international competitors. The human resource advantage of Chinese contractors is far beyond that of other international competitors. And the developing countries in Africa and Latin America are most sensitive to the costs and prices in the international construction markets. At the initial stage, these countries' economies call for plenty of infrastructures. However, the offers of large international contractors are usually high, so the gap between the supply and the demand provides extensive opportunities for CCCC to enter the market through the contractual mode. Meanwhile, at the early period of entering overseas markets, Chinese enterprises peruse the idea of "Winning the market with profits" with low prices and first-class project qualities, which lays a solid foundation to enter the overseas markets with contractual mode.

(3) Selecting the market entry strategies at different stages with long-term and dynamic mindset

Since the early stage of internationalization management, Chinese enterprises have considered developing countries such as African and Latin American countries as the first step to enter the international market. By virtue of low cost and the simple business mindset of "Just do it if profit exists", Chinese enterprises have rapidly entered some underdeveloped countries and regions, for which large international contractors show little interest. Chinese enterprises thus occupied certain and stable market share, leading to partial advantages, and then gradually grown and developed and finally entered developed countries' markets such as European and American countries.

5.4 Summary of This Chapter

This chapter is case study of this thesis. First, taking the giant state owned construction company as the research object and considering its national background, the author proposed three hypotheses for the internationalization operation of giant state owned construction

companies and the analysis framework on market entry mode was constructed. Second, the investment environments of Angola and Kenya were compared and analyzed, and the five classifications of project contracting market in Angola and Kenya were summarized. Finally, taking CCCC's entry into Angola and Kenya as an example, the author analyzed the characteristics and differences of CCCC's market entry mode selection through elaboration of typical events and processes. In this way, the author verifies the effectiveness and applicableness of the theoretical framework in this thesis, which makes up the deficiency in market entry mode selection for enterprise internationalization operation and provides reference and food for thought for future market entry practice.

Chapter 6: Conclusions and Prospects

6.1 Major Conclusions of This Thesis

Taking the giant state owned construction company as research object, the author analyzed its market entry mode selection for internationalization and the major conclusions are as follows:

First, enterprise internationalization and related concepts, theories of enterprise internationalization strategy, evolution of enterprise internationalization theories and strategic selection theory of enterprise diversification were elaborated through review and summarization of literatures.

Second, research methods and tools were introduced in this thesis. It adopted the research philosophy integrating quantitative and qualitative analysis with case study to verify the effectiveness. With questionnaires to collect the data and the employment of qualitative tools of SWOT analysis, Porter's Five Forces Model and PEST, the external macro environment and microenvironment as well as the enterprise's internal environment are fully understood, which provides basis for formulation of the enterprise strategy. Based on the analysis of current comprehensive evaluation methods, the AHP proposed by Saaty is used as quantitative analysis tool in this thesis, whose basic viewpoints and procedures are introduced.

Third, the industry environment for internationalization operation of construction enterprises is analyzed and the SWOT analysis framework is established. According to the theory of value chain, the internal conditions of enterprise are deconstructed, which gives rise to four strategic choices for enterprise development. Following is the elaboration of the conception and classification, internal attributes and influential factors of market entry mode selection for internationalization of construction companies. Based on the above analysis, the author focuses on CCCC, the typical representative of giant Chinese state owned construction companies and constructs the SWOT framework and weight system, based on which the strategic positioning for CCCC is established.

Finally, based on the analysis of industry environment and enterprise's strategic positioning and considering the national background of enterprises, the three hypotheses on the internationalization operation of giant state owned construction companies were proposed

and the analysis framework on market entry mode selection was constructed herein. Through comparison and analysis of investment environment of Angola and Kenya, the five classifications of project contracting in Angola and Kenya were made. Taking CCCC's entry into Angola and Kenya as an example, the author analyzed the characteristics and differences of CCCC's market entry mode selection through elaboration of typical events and processes, verifying the effectiveness and applicableness of the theoretical framework in this thesis.

6.2 Creativeness of This Thesis

Compared with other related research at home and abroad, this creativeness of this thesis has the following aspects:

1) Qualitative and quantitative analysis are integrated, so are the theoretical analysis and case study, which gives an all-round understanding on market entry mode selection for enterprise internationalization.

2) Based on literature review and exploratory research, three hypotheses on market entry mode selection of giant state owned construction companies were proposed.

Hypothesis 1: the policy guidance for giant state owned enterprises' "going global" is an important means of the country's full participation in world economy and realization of globalization strategy.

Hypothesis 2: with policy support, giant state owned construction companies have comparative advantage in funding and risk assumption compared with other multinational companies, and they play the dual role of realizing both corporate and national strategies.

Hypothesis 3: As China's economy develops fast, the foreign trade surplus expands and foreign reserve accumulates, for the fake of maintaining and increasing their value, it is necessary to invest overseas and turn them into tangible national strategic assets

3)Starting from the three hypotheses and considering the national background of giant state owned construction companies, it is thought that government relations are important factor affecting the risk evaluation and mode selection of enterprise entering overseas market, based on which the theoretical analysis framework on the market entry mode selection of giant state owned construction companies was constructed.

4) The stage characteristics of market entry mode selection for internationalization of giant state owned construction companies were given. It was thought that the market entry of enterprise can be divided into three stages: "going global", "going in" and "coming out".

"Going global" means that the enterprises enter the overseas market with a low-risk mode with the help of government relations and may not necessarily aim at profit maximization. Then the enterprises fully understand the politics, economy and culture and other external environment of the target country and gradually acquaint itself with the operation mode of the local market to accumulate internationalization experience. "Going in" means to, after being familiar with the target country and gaining a foothold there, actively participate in market competition with local enterprises and transnational companies, complete projects with high quality and high efficiency, set up brand reputation, expand influence, display responsible enterprise image, spread its unique enterprise culture and gain recognition and praise from local government and residents. "Coming out" means to enter the markets of its neighboring countries with similar cultural and political background under the condition that the company has rooted deeply into the overseas market and been in overall localization management, achieving amplification effect.

6.3 Prospects

This author has conducted exploratory research on the market entry mode selection for internationalization operation of giant Chinese state owned construction companies and has drawn some basic understanding. However, due to the constraints of this research, there is still a lot to do in the future, mainly as follows:

(1) Deepen the research on the market entry mode selection for enterprise internationalization operation, including weakening the national background of the enterprise and entering the market in a market way.

(2) Broaden the research on market entry mode selection of enterprise internationalization operation. Based on the market entry mode selection in this thesis, explore the research on location selection and industry selection of internationalization for state owned enterprises.

(3) Strengthen basic research on market entry mode selection theory of enterprise internationalization. Based on the theoretical framework of market entry mode for giant state owned construction companies, deepen the research on the characteristics of market entry mode selection of enterprise.

(4) Enhance the applied research on the market entry mode selection of giant state owned construction companies. Apply the theoretical analysis framework into applied case study to enrich and perfect relevant research.

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Appendix 1

Questionnaire about the Relative Importance of the

SWOT Framework of China Communications Construction Company

Thanks for your replay! This questionnaire is taken for study purpose, and your responses would be definitely kept as confidential information that will be used exclusively for academic studies.

(Grads are from 1 to 7, while 1-not at all, and 7-extreme important)

Part one: Strengths	1	2	3	4	5	6	7
1) Strength of market brand	□	□	□	□	□	□	□
2) Strength of talent and science and technology	□	□	□	□	□	□	□
3) Complete industry chain and capability in large project	□	□	□	□	□	□	□
4) Strength in equipment	□	□	□	□	□	□	□
5) Strength in financing	□	□	□	□	□	□	□

Part two: Weaknesses

1) Single business structure, low internationalization and efficiency

□ □ □ □ □ □ □

2) Shortage of top-notch talents and low information efficiency

□ □ □ □ □ □ □

3) Loose project management, low synergistic effect of industry chain and imperfect management style

□ □ □ □ □ □ □

Part three: Opportunities

1) Implementation of national strategy of “going global” □ □ □ □ □ □ □

2) Rapid growth of overseas infrastructure market □ □ □ □ □ □ □

3) Container ports entering into cycling period and market increase for steel structure and oceaneering equipment

□ □ □ □ □ □ □

Part four: Threats

1) Overseas market threat from domestic giant state owned construction companies

□ □ □ □ □ □ □

2) Risk increases at overseas market, international project contracting market increases and non-trade barriers arise

□ □ □ □ □ □ □

3) Demand for port machinery and international logistics are low

□ □ □ □ □ □ □

Part five: Overall Evaluation

1) Relative importance of strength □ □ □ □ □ □ □

2) Relative importance of weakness □ □ □ □ □ □ □

3) Relative importance of opportunity □ □ □ □ □ □ □

4) Relative importance of threat □ □ □ □ □ □ □

Part six: personal information

Gender: Male □ Female □

Age: under 20 □ 20-30 □

30-40 □ 40-50 □

50 and above □

Education background: High school □ Bachelor □

Master □ PHD □ Others □

Personal income: Less than 1k □ 1k-2k □ 2k-3k □

3k-5k □ 5k-8k □ more than 8k □

Thank you again for your reply!

Appendix 2

Questionnaire about SWOT Evaluation of China Communications Construction Company

Thanks for your replay! This questionnaire is taken for study purpose, and your responses would be definitely kept as confidential information that will be used exclusively for academic studies.

Part one: Strengths	1	2	3	4	5
6) Strength of market brand	□	□	□	□	□
7) Strength of talent and science and technology	□	□	□	□	□
8) Complete industry chain and capability in large project	□	□	□	□	□
9) Strength in equipment	□	□	□	□	□
10) Strength in financing	□	□	□	□	□
Part two: Weaknesses					
4) Single business structure, low internationalization and efficiency	□	□	□	□	□
5) Shortage of top-notch talents and low information efficiency	□	□	□	□	□
6) Loose project management, low synergistic effect of industry chain and imperfect management style	□	□	□	□	□
Part three: Opportunities					
4) Implementation of national strategy of “going global”	□	□	□	□	□
5) Rapid growth of overseas infrastructure market	□	□	□	□	□
6) Container ports entering into cycling period and market increase for steel structure and oceaneering equipment	□	□	□	□	□
Part four: Threats					
4) Overseas market threat from domestic giant state owned construction companies	□	□	□	□	□
5) Risk increases at overseas market, international project contracting market increases					

and non-trade barriers arise

□ □ □ □ □

6) Demand for port machinery and international logistics are low □ □ □ □ □

Part five: personal information

Gender: Male □ Female □

Age: under 20 □ 20-30 □

30-40 □ 40-50 □

50 and above □

Education background: High school □ Bachelor □

Master □ PHD □ Others □

Personal income: Less than 1k □ 1k-2k □ 2k-3k □

3k-5k □ 5k-8k □ more than 8k□

Thank you again for your reply!