

Analysis on the Transnational Operation of China National Petroleum Corporation

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Abstract— With the development of globalization, the signs of anti-globalization are more and more obvious. As the biggest oil company--China national petroleum corporation, in order to adapt to China's industry and the consumption structure upgrade, need to be more actively involved in the international competition, more positive and effective international strategy in an increasingly complex international environment. This paper analysis about China National Petroleum Corporation, using the SWOT analysis, put forward the international operation strategy of foster strengths and circumvent weaknesses. Especially, when strengthening international cooperation in the oil business, China national petroleum corporation also need to take advantage of its own strong industry foundation to take park in related items such as new energy products, and enhance the company's overall competitive advantage.

Keywords— China national petroleum corporation; Competitive advantage analysis; SWOT analysis.

I. INTRODUCTION

With the rapid development of China's economy, the demand for oil in China's industrial economy is also increasing. In 2017, China surpassed the United States as the world's largest importer of crude oil, which also means that CNPC is becoming increasingly important to China's economy. According to the data, China's annual net oil imports in 2018 increased by 11% year-on-year. In 2018, CNPC's external dependence on oil reached 69.8%, and by 2019, China's foreign dependence on oil and gas will continue to rise.

Sun Yunuo put forward: There are some problems about the profitability of CNPC, including: lack of unique competitiveness of enterprises, poor capital operation efficiency, and low capital recovery from investment^[1]. Chen Yongliang thinks about domestic oil supply and demand analysis, believes that domestic oil demand will continue to increase in the future, and the proportion of imports will increase year by year. Then the price of imported oil will continue to increase in the future which will become more unstable^[2]. Sheng Hong analyzs about the "oil shortage" incidents, explores the problems existing in the monopoly system of the Chinese petroleum industry from the aspects of government public responsibility and market efficiency^[3]. Yin Qiang comparatively compares the relevant data of domestic and foreign gas stations, described the current competitive situation of China's refined oil retail terminals and their problems, then proposed that CNPC and Sinopec should actively cooperate with the government's gas station reform^[4].

According to the previous literature research, this article uses the financial data of China National Petroleum Corporation as a breakthrough, and uses SWOT analysis method to put forward targeted opinions to China National Petroleum Corporation.

II. INTRODUCTION CHINA NATIONAL PETROLEUM CORPORATION

China National Petroleum Corporation ("PetroChina") was established on November 5, 1999. CNPC is the largest oil and

gas producer, oil and gas seller in China's oil and gas industry. It is widely engaged in oil and gas related businesses. CNPC's operations cover all links in the petroleum and petrochemical industry, forming a complete business chain which has optimizes efficient and integrated operations.

The members of China National Petroleum Corporation include oil and gas field companies, refining and chemical companies, sales companies, and natural gas and pipeline storage and transportation companies. On November 17 2008, CNPC and the Costa Rican National Petroleum Corporation signed the Agreement on Refinery Joint Ventures about "the China National Petroleum Corporation and the Costa Rican National Petroleum Corporation". On June 2011, CNPC signed cooperation documents with the National Petroleum Corporation of Cuba, including the Framework Agreement on Expanding Cooperation about "China National Petroleum Corporation and the National Petroleum Corporation of Cuba".

According to the annual report of China National Petroleum Corporation, the company's annual revenue was 2.02 trillion yuan, net profit was 22,793 million yuan, basic earnings per share were 0.12 yuan. Affected by factors such as the increase in prices of crude oil、natural gas and refined oil, the turnover of CNPC in 2017 had increased by 24.7% over the same period of the previous year.

In terms of natural gas, the growth rate of natural gas consumption had increased in 2017. Domestic natural gas production was 148.7 billion cubic meters. Natural gas imports were 92 billion cubic meters. The consumption volume was 237.3 billion cubic meters. In addition, in 2017, CNPC's overseas business had achieved turnover of 721.374 billion yuan, accounting for 35.8% of the company's total turnover, and pre-tax profit of 4.543 billion yuan, accounting for 8.6% of CNPC's pre-tax profit.

As an important strategic resource, petroleum is the guarantee of national economic development and national security. Therefore, the long-term sustainable development of CNPC is a great significance for maintaining domestic oil

prices, maintaining the efficient and sustainable development of China's economy and national energy security.

III. FINANCIAL DATA ANALYSIS

3.1 Liquidity Ratio

Current ratio = current assets / current liabilities. The higher the current ratio, the stronger the ability to realise the assets of the enterprise and the stronger the short-term solvency. According to the annual report, PetroChina's current ratios were less than 1 from 2000 to 2017, indicating that the liquidity and the short-term solvency is not strong. However, the overall trend is rising, which shows that the liquidity ability and the short-term debt repayment ability is gradually increasing.

TABLE 1. China petroleum liquidity ratio statistics

Years	2012	2013	2014	2015	2016	2017
Current ratio	0.690	0.668	0.675	0.741	0.764	0.737
Quick ratio	0.317	0.316	0.389	0.472	0.470	0.335
Cash ratio	0.087	0.089	0.131	0.156	0.198	0.341

Quick ratio = (current assets-inventory) / current liabilities. Generally, companies with higher snap ratios are safer. The quick ratio reflects the company's short-term solvency, and it reflects how much assets can be realised immediately when a company needs to repay short-term debt. It is known from Table 1 that the quick ratio of CNPC has been on the rise as a whole in continuous fluctuations, indicating that the company's ability to pay debts is gradually increasing.

Cash ratio = cash on hand / current liabilities. The cash ratio reflects the ability of an enterprise to directly repay the current liabilities. From Table 1, CNPC's cash ratio is increasing, and the growth rate is also gradually accelerating, which indicates that the ability of enterprises to directly pay current liabilities is gradually increasing, and the increasing trend is becoming more obvious.

3.2 Long-term Leverage

TABLE 2. PetroChina's long-term leverage ratio statistics

Years	2012	2013	2014	2015	2016	2017
Total debt ratio(%)	45.6	45.8	45.2	43.8	42.7	42.5
Debt-equity ratio(%)	83.7	84.4	82.5	78.1	74.6	0.74
Equity Multiplier	1.837	1.844	1.825	1.781	1.746	1.74
Long-term debt ratio (%)	25.9	25.1	27.8	30.1	27.6	17.6
Interest coverage ratio	10.184	8.713	7.723	3.391	2.936	2.25

Total debt ratio = total debt / total assets. This ratio reflects the security of creditors' loans. If the asset-liability ratio is $\geq 100\%$, the company is insolvent. According to Table 2, CNPC's debt ratio has always been below 50%, and it has shown a downward trend. This shows that the company's debt situation is relatively normal, and the creditors are more secure in issuing loans.

Debt-equity ratio = total debt / total equity. The debt-equity ratio reflects the capital structure in the balance sheet. According to Table 2, PetroChina's debt-equity ratio has always been lower than 1, and it has also shown a downward trend, which indicates that its capital operation capacity is not very good.

Equity multiplier = total assets / total equity. Equity multiplier refers to the multiple of total assets equal to shareholders' equity. The larger the equity multiplier, the smaller the proportion of capital invested by the owner in the total assets, the higher the degree of corporate debt, and the lower the degree of protection of creditors' rights. According to Table 2, PetroChina's five-year equity multiplier is relatively stable, indicating that its financial risks are relatively stable.

Long-term debt ratio = long-term debt / (long-term debt + total equity). This indicator reflects the asset guarantee that an enterprise can use to pay non-current liabilities during liquidation. The lower the indicator, the stronger the company's long-term debt repayment ability and the higher the security of creditors. Current liabilities often change, so this indicator excludes current liabilities. According to Table 2, the fluctuation of CNPC's long-term debt ratio has become more obvious compared to the above indicators. According to the analysis, the fluctuation of CNPC's current liabilities from 2012 to 2017 is obvious. Therefore, under the condition of relatively stable total debt ratio, The debt ratio fluctuated significantly.

Interest coverage multiple = profit before interest / tax interest. The larger the multiple, the stronger the company's ability to pay interest expenses, which can be used to measure the security of claims. To maintain normal solvency, the interest protection multiple should > 1 . The higher ratio, the stronger the company's long-term solvency. According to Table 2, CNPC's interest protection multiple has dropped sharply from 2013 to 2015. The decline in oil prices in recent years caused by the profit before interest and taxes that had a sharp drop.

3.3 Asset Turnover

Inventory turnover rate = cost of sales / inventory. The inventory turnover rate can reflect the turnover speed of the company's in-stock assets in a certain period of time and is an indicator of the efficiency of the company's procurement, production and sales. The higher inventory turnover rate, the stronger about the company's inventory asset realizing ability, and the faster turnover of the inventory and the funds used in the inventory. According to Table 3, CNPC's inventory turnover rate increased first and then decreased, indicating that the speed of asset turnover first increased and then decreased.

TABLE 3. China petroleum assets turnover statistics

Years	2012	2013	2014	2015	2016	2017
Inventory turnover	7.635	7.497	10.455	10.249	8.414	7.76
Accounts receivable turnover	34.062	35.268	42.990	33.015	34.173	20.03
Total asset turnover	1.012	0.964	0.949	0.721	0.675	0.57

Accounts receivable turnover rate = sales revenue / receivables. The account receivable turnover rate indicates the average number of times that the company's receivables become cash within a certain period. If the company's receivables is recovered in a timely manner, the company's

capital utilization efficiency can be greatly improved. The high turnover rate of accounts receivable indicates that the collection of accounts is fast, the liquidity of assets and the short-term solvency is strong. As can be seen from Table 3, CNPC is relatively stable, and the turnover rate is mostly greater than 30 times, indicating that the company's capital use efficiency is relatively good, assets are highly liquid, and bad debt losses are not high.

Turnover rate of total assets = sales revenue / total assets. The total asset turnover rate is an important indicator for evaluating the operating quality and utilization efficiency of all assets. The larger turnover rate, the faster turnover rate of all assets from input to output, and the higher management quality and utilization efficiency of all assets. According to Table 3, the turnover rate of CNPC's total assets has been decreasing, indicating that the turnover rate of CNPC's assets from input to output has slowed in recent years, that should be related to the decline in international oil prices.

IV. CNPC SWOT ANALYSIS

In the process of economic globalization, competition in the oil industry become increasingly fierce. As a large energy-based multinational company, CNPC faces severe and complex external environments, which means big challenge. At the same time, CNPC has unique advantages and some disadvantages. If CNPC analyzes its own strength, recognizes its advantages and disadvantages, takes the opportunities, makes full use of international and domestic markets, continuously improves its competitiveness, and survives and develops in the fierce international competition.

According to swot theory, This article analyze the internal advantages, internal disadvantages, external opportunities and external threats of CNPC internationalization, and propose corresponding development strategy recommendations based on the analysis results.

SWOT analysis table:

S 1.Strong scientific research force and advanced exploration technology 2.Perfect industrial chain and brand effect 3.Strong financial strength and stable political environment	W 1.Poor technical innovation ability 2.Lack of international operation experience and talent 3.Low international resource share
O 1.The consumption of products represented by automobiles further stimulates the demand for oil 2.The new energy revolution represented by shale gas has eased monopoly control over oil by oil exporting countries 3.The enhancement of China's international status provides a good political environment for CNPC's transnational cooperation	T 1.Rising populism and turbulence in the international situation 2.Threat of lifeline by sea

4.1 Analysis of CNPC's Internal Advantage Conditions (S)

4.1.1 Strong financial strength and stable political environment

CNPC is the largest oil producer and seller in China. It is one of China's largest companies with sales revenue and one

of the world's largest oil companies. From 2015 to 2017, CNPC's total asset size has been maintained at more than 3 trillion yuan, with an average annual operating income of two trillion yuan. For example, CNPC's total operating income was 2.3 trillion in 2017, accounting for 2.5% of the China's GDP. In addition, it has applied for a financial industry entry license, CNPC has used its strong financial strength to build its financial empire, and has gradually built a comprehensive international energy company that combines financial capital and industrial capital.

On the other hand, CNPC belongs to the SASAC and is directly managed by the central government. Due to the irreplaceable role of oil in China's economic development, the central government has always been stern and strict in its policies towards CNPC to avoid large fluctuations caused by various policies. CNPC has established a good internal political environment for PetroChina, making the company's internal decision-making strategy more sustainable.

4.1.2 Strong scientific research force and advanced exploration technology

Since its establishment, CNPC has attached great importance to scientific, technological progress and innovation. By the end of 2013, the company build national key laboratory research center. At the same time, the company conducts technical cooperation and joint research through establishing long-term cooperation with the Chinese Academy of Sciences and domestic universities, and establishing strategic alliances with well-known foreign institutions and universities. In 2011, the company applied for 3,026 patents,.

4.1.3 Perfect industrial chain and brand effect

CNPC has an integrated and complete business chain with oil and gas upstream businesses, and possesses the ability to integrate upstream and downstream operations. From the beginning of oil exploration, the establishment of oil fields, equipment installation, crude oil extraction, crude oil refining, transportation, oil delivery at retail stores, and retail operations, CNPC has refined the process division of labor through the construction of the company's internal organizational structure, especially One-stop service that is formed on the chain. A complete industrial chain can greatly improve the company's operating efficiency, reduce the quality loss and image loss caused by process outsourcing.

4.2 Internal Disadvantage Analysis (W)

4.2.1 Poor technical innovation capability

In contrast to CNPC's strong scientific research capabilities, the transformation of CNPC's scientific research results into practical technology is very weak. Compared with large foreign oil companies, CNPC is not efficient enough in oil extraction and refinement. The types of products at the end of the industrial chain are still on primary products. The technology content of products is low, and the research and development of add-ons to petroleum products are less.

4.2.2 International resource share is low

In recent years, CNPC has invested heavily in overseas oil and gas exploration, it is either unavailable due to international political factors. Due to the late implementation of CNPC's "going global" strategy, most regions with rich oil

and gas resources and high energy quality have been captured by western oil giants, while other regions have either high development costs, harsh natural conditions, or political and military that its instability has made it more difficult for our oil companies to go overseas.

4.2.3 Lack of international operation experience and talent

At present, CNPC has not yet established a database of oil and gas basins and oil fields worldwide. It also lacks research on the exploration and development history and investment environment of various countries. It is in a state of passive evaluation in the bidding process of certain blocks. In addition, CNPC's international business has not yet established an international talent team with rich international experience and knowledge of international market rules, which puts the company at a comparative disadvantage in the process of international development.

4.3 Analysis of External Opportunities for PetroChina Internationalization (O)

4.3.1 Consumption of products represented by automobiles further stimulates people's demand for oil

In recent years, the growth rate of automobiles is higher than market expectations, and the number of vehicles in China has exceeded 200 million in 2-3 years. Before the popularization of new energy vehicles, huge automobile consumption has determined that the demand for oil has been increasing in the past decade, which has provided a strong guarantee for CNPC's revenue.

4.3.2 The new energy revolution represented by shale gas eased the monopoly control of oil by oil exporting countries

In recent years, the United States has successfully developed shale gas technology and combustible ice mining technology, which enables people to obtain industrially produced energy from non-petroleum raw materials, which is a huge impact for oil countries. At the same time, due to geopolitics, market environment and other factors, oil exporting countries have started to increase their oil production. The increase in supply will inevitably urge these countries to reduce oil prices, which is the biggest good news for CNPC.

4.3.3 China's enhanced international status provides a good political environment for PetroChina's transnational cooperation

The main source countries of our country are Iran, Saudi Arabia, Russia and Central Asia. As China's economic strength continues to strengthen, China and these oil-producing countries have conducted economic cooperation in various aspects, strengthened the friendship between the two countries, and provided a good opportunity for CNPC's oil procurement.

4.4 PetroChina's External Threat Analysis (T)

4.4.1 The rise of populism and the turmoil of the international situation

At present, more than 80% of the world's high-quality oil resources are controlled by European and American multinational oil giants. China's oil companies have little room to acquire foreign oil and gas resources. It has increased

the difficulty for PetroChina to obtain oil and gas resources overseas.

On the other hand, the political situation in major oil exporting regions in the world except Russia, such as the Middle East, North Africa, and South America, is unstable. These countries are the main source of Chinese oil imports, accounting more than amount for Chinese oil imports. In recent years, ethnic and religious contradictions, territorial disputes, and US-led Western countries' intervention in the Middle East, that increases the political and political risks of CNPC's business expansion in these countries, and CNPC have to deal with increasingly delicate international political relations while competing with international multinational oil giants.

4.4.2 Threats to maritime transport lifeline

China's current imports of oil are all from the Middle East and North Africa, basically by sea transportation through the Straits of Malacca and Strait of Hormuz. And these channels have been in the status quo of political turmoil, international terrorism, frequent pirate nuisances, and constant religious conflicts, which also pose great challenges to the safety of the two oil routes.

V. PROPOSAL FOR PETROCHINA DEVELOPMENT STRATEGY BASED ON SWOT ANALYSIS

SO strategy S1+O1 CNPC should use its own strong economic strength to open up vast emerging markets in Asia, Africa, and Latin America, and tap into the market's demand potential.	WO strategy O2+W2;O1+W1 1.CNPC should use the increase in international oil production , strengthen international cooperation, strengthen import procurement, and build domestic oil reserve warehouses to make up for the disadvantage of a small international oil field. 2.In emerging markets and local markets, CNPC should strengthen cooperation with advanced oil companies in technology transfer, and strengthen their own industrial chain technology through market-for-technology exchanges.
WT strategy W1+T1 CNPC's external threat is that the source of oil is far away and shipping risks are high. CNPC should strength oil cooperation with neighboring Central Asian and Russian countries to avoid uncertainty threat. In addition, CNPC should go out through acquisitions and mergers , take advantage of local national companies for oil procurement and transportation to avoid political instability.	ST strategy S1+S2+T3 CNPC should use its own complete industrial chain foundation and good brand effects to develop horizontal industries, invest in new energy fields, and create a CNPC brand in the new energy field.

5.1 SO Strategy

The SO strategy refers to the comprehensive utilization of internal advantages and external opportunities to further enhance its development advantages. CNPC should use its own strong economic strength to open up vast emerging markets in Asia, Africa, and Latin America, and tap into the

market's demand potential. Take India as an example. India's population ranks second in the world, its GDP level is also constantly increasing, and its economic development structure is also similar to that of China. It will soon become the country with the second largest oil consumption potential in China. The development of new markets requires huge capital investment. CNPC can use its strong economic strength to lay a foundation in new economy markets, open up markets.

5.2 WO Strategy

WO strategy refers to using external basis to make up for internal weaknesses. First, PetroChina should use the increase in international oil production to strengthen international cooperation, and build domestic oil reserve warehouses to make up for the disadvantage of international oil field. Second, in emerging markets and local markets, CNPC should strength cooperation with advanced oil companies in technology transfer, and strengthen their own industrial chain technology through market-for-technology exchanges.

5.3 WT Strategy

The WT strategy aims to reduce internal weaknesses and avoid external threats. CNPC's external threat is that the source of oil is far away and shipping risks are high. CNPC should strength Oil cooperation with neighboring Central Asian and Russian countries to avoid uncertainty threat. In addition, CNPC should go out through acquisitions and mergers, take advantage of local national companies for oil procurement and transportation to avoid political instability.

5.4 ST Strategy

ST strategy uses the company's own advantages to avoid or mitigate the impact of external threats. Faced with increasingly severe forms of environmental protection and the promotion of new energy products, CNPC should use its own complete industrial chain foundation and good brand effects to develop horizontal industries, invest in new energy fields.

VI. SUMMARIZE

As the largest domestic crude oil producer and supplier, CNPC must consider the safe supply of crude oil resources

under the current rapid economic development opportunities. As overseas company, it must also consider the interests of shareholders and its own long-term development issues. The future of CNPC in China is related to the overall international competitiveness of China's petroleum industry. The implementation of internationalization strategy is not only a heavy task entrusted to CNPC by history, but also an inevitable path for companies to follow the trend of the times and realize their own development. The study of internationalization strategies will be long-term and valuable. In addition, with the continuous enhancement of the overall competitiveness of CNPC, it has accumulated sufficient development potential in the implementation of internationalization strategies and participation in the globalization of resource allocation. Under the guidance, CNPC will face a new situation in the development process.

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