A STUDY ON CHINESE SALT MONOPOLY MECHANISM INNOVATION

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Abstract: With a comparative analysis on the monopoly and non-monopoly system of Chinese Salt Monopoly, the author believes a competitive margin can be earned through improving the management of owner and perfecting its value chain within an open market. The paper proposes an innovation model in order to give some constructive suggestions regarding the next reform of the Chinese salt industry. Simultaneously, the author references the use of the Balanced Scorecard and the DEA evaluation mechanism. By doing so, it enables us to pinpoint the issues on reforming the system.

Key words: China Salt, Salt Monopoly, Innovation, Evaluation

Salt is a necessity of daily life, Salt Tax is the pillar one of Chinese Tax-species during several thousand years. The sales and management of salt industry is related to the people's livelihood. Since 1949, with the progress of Chinese[4] industrialization process, there appeared some new marketing features, management methods, and systems[5]. Lu Jianping, Renmin University of China Law Professor, thought that the salt monopoly circumstance can not stand scrutiny. Lu fuyu believes that[6] the existing system has many defects, such as the disjointed production and marketing sections, political influences, administrative monopoly and many other disadvantages. This brings enterprise deformity, proliferation of rent-seeking and difficulty of integration. This shows that in order to meet future market-oriented reform and the international market, systematic research on both salt and the marketing system and innovation of the franchise mechanism is a must.

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1. COMPARISON OF THE EXISTING SYSTEM OF SALT MONOPOLY AND THE FUTURE OF THE MARKET SYSTEM

1.1 Analysis of the Internal and External environment

1.1.1 Political Factors

At present the Chinese Government's guidelines, policies, laws, etc. are gradually inclined to open, protect, and regulate the salt market. With China's democratic system being improved continuously, the state is gradually building up a good protecting and monitoring environment for the development of salt industry. At present, China has been opening up industrial salt market, allowing salt enterprises to participate in competition, but salt is still entirely controlled and distributed by the state. Under these circumstances, the system has relatively more freedom to circulate non-franchised under the legal system will be more emphasized on macro control in future.

1.1.2 Economic Factors

At present, Chinese macroeconomic environment is in a state of virtuous circle. Because of the family planning policy, the growth of population will slow down and the national income will increase, gross national product is in the fourth place of the world, and development of the national economy is fast, with a degree of around 10 percent every year. Chinese micro-economic environment is gradually improving, consumer income has improved continuously, the capacity of salt market is growing, and salt consumption has showed a steady growth.

1.1.3 Social culture Factors

At present, low education level and low living quality of the citizens have been effecting the level of the needs of residents; Conservative religious beliefs and customs boycotts certain activities. However, we have to see people's value has had a huge change, and a sense of the market deepened in the hearts, which will strengthen the reform as well as the recognition and support of the process.

1.1.4 Technological Factors

The state currently invests and supports scientific and technological development of salt focused on the application. The domestic and international technology develops and changes fast in the fields of salt, and salt technology transfer and commercialization has gradually accelerated speedily. Currently, domestic salt patents are in small quantities, the legal protection of intellectual property rights is also not very sound.

1.1.5 Analysis of the main operators

Yang Guoqi believes that[7] all levels of salt corporations are the mainstay of Salt Monopoly. He also suggests that only companies can fully ensure salt supply and keep social benefits. In fact, in an administrative region of China, salt production is carried out according to the plans of the few manufacturers chartered by the government, and its sale is also implemented by the sole distributor designated by the Government. Salt is sold to the designated distributors arranged by the government without sales rights. In the market, these companies have monopolistic pricing rights to the special products in the government's permission. They usually tend to buy salt from manufacturers in low price as far as possible, and the same time, they also make full use of their monopoly position in the market to raise the selling price aiming to earn monopoly profits.

In complete competitive market, the salt enterprises must pay attention to rapid response to information, employees, productions, money and low-cost services. Therefore, they should emphasize

[7] Yang Gangqi. The subject of Chinese Salt Monopoly is salt enterprises.*The well & miner salt of Chinese*, Issue 6s in 1999:7-8

on improving information construction. Many enterprises have already used remote information control in stocking, producing, shipping, marketing, after service, supportive operations, and constantly improve their service. While salt industry adopting new technologies, it also plays emphasis on the activeness of staffs to creatively run the entire value chain.

1.2 Analysis of Five-Force Model

In the early 1980s, Michael Porter presented a Five-Force Model. What really significant of this model for establishing corporate strategy is that it contains three kinds of strategy thinking to be succeeded: leading overall cost strategy, differentiation strategy and specific strategy. The Five-Force Model for salt market is shown as Figure 1.

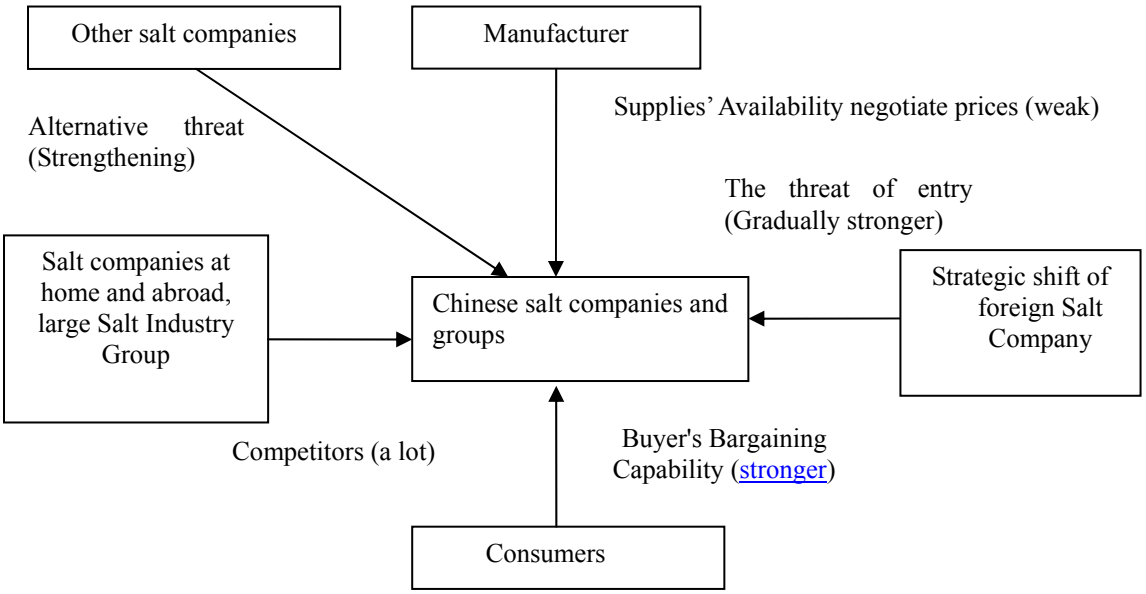

Figure 1 Five-Force Model analysis on Chinese salt industry in the future

Local and foreign salt companies and big salt groups are the greatest competitors to salt monopoly companies at present. These competitors have strong technology advantages and abundant cash, which bring on great stress on production and circulation of our salt enterprises. Salt giant use of the WTO rules and gradually enter the Chinese market, entered the threat has been enhanced significantly. Under the condition of the fully competitive market, consumers bargaining power with the policy of openness, income levels rise, and information sharing and other reasons has been rising. Manufacturers' bargaining power is still relatively low by policy, the environment, productivity and other factors. With the market and the operational autonomy opening up, the new product will continue to arising, alternative threat will continue to intensify. Salt enterprises can choose overall cost leadership strategy, the differential strategy or specific strategy according to their own advantage.

2. THE INNOVATION MECHANISM MODEL OF SALT MONOPOLY

2.1 Criteria of model construction and principles

The purpose of the model construction is to establish a line with Chinese national conditions of the salt market system. Due to innovative mechanisms involved in the broader economic sphere, and relations between the people's livelihood, we must take a progressive approach to balance the interests of all parties, reflect the market allocation of resources, in order to achieve the survival of the fittest, and promote the Core competition of salt industry. The following basic principles need to grasp.

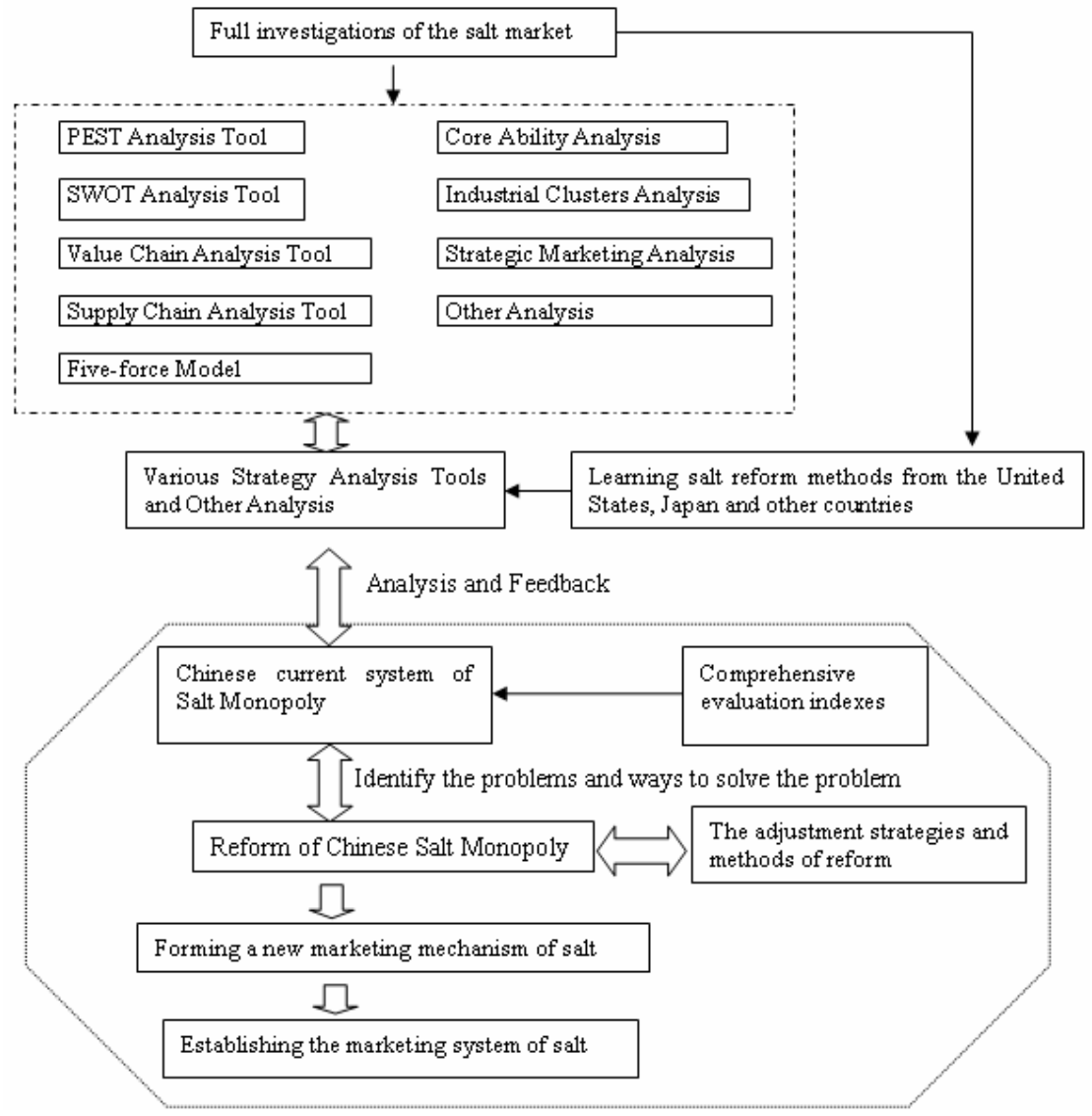

Figure 2 The constructing ideas of the innovation model of Salt Monopoly mechanism

1st. The principle of systematic and right degenerative. Due to the model building is a complex process. Systems design approach requires beginning to the end. In addition, the innovative mechanism

is not fixing, the design process should be paid attention to feedback and improvement.

2nd. The principle of combining targets with ways. The overall target is to change the mechanism from salt monopoly to salt marketing. Meanwhile, setting targets must carry out target decomposition and make the overall target well combined with divisional targets at every stage, be able to adjust the stage divisional targets timely and effectively, find better practical ways.

3rd. The principle of combining medium-long term plans with short-term plans progressively. The short-term planning can incarnate the ability to solve current problems, and the medium-long term planning should reflect the ability of macro-control, ensuring the establishment of the marketing mechanism for salt.

Through full investigations of the salt market, using appropriate strategy analysis tools to analyze salt market, referring the gradually reform of Euro-American salt management modes represented by USA and Japan at the same time, taking the salt enterprises as the main body and the government as the supervisor, adopting market competition mode to innovate, the specific constructing ideas below Figure 2.

2.2 The innovation model of Salt Monopoly mechanism

Based on the foregoing analysis and research, in accordance with the principle of gradual and orderly progress, the innovation model of Salt Monopoly mechanism is divided into five steps establish by the author as shown in Figure 3.

The first step is the initial stage of reform, using various strategy tools to analyze the pros and cons of the current monopoly system, and comparing comprehensive evaluation indexes to analyze the current system of Salt Monopoly.

The second step is to work out industry development plan and Chinese uniform Salt Industry Law, managing the Salt Industry macroscopically, planning the overall target and stage targets on the reform of Chinese Salt Monopoly system.

The third step is to the development stage of reform, the Government and other regulators take positive adjustment strategies and methods of reform, paying close attention to comparative results of stage targets of reform and improving feedbacks.

The fourth step is the reform period. The salt market mechanism is gradually formed, using all kinds of strategic analysis tools to analyze, contrasting comprehensive evaluation indexes to analyze the salt market system after the reform, concluding and continuously improving.

The fifth step is the final stage of initial reform. Through the reform, the size of the enterprises, the technology and the level of human resource management have been modificated and improved, the industry's competitiveness has been improved and the salt marketing system has been gradually established. On the basis of continuous adjustment, Chinese salt marketing system was set up finally.

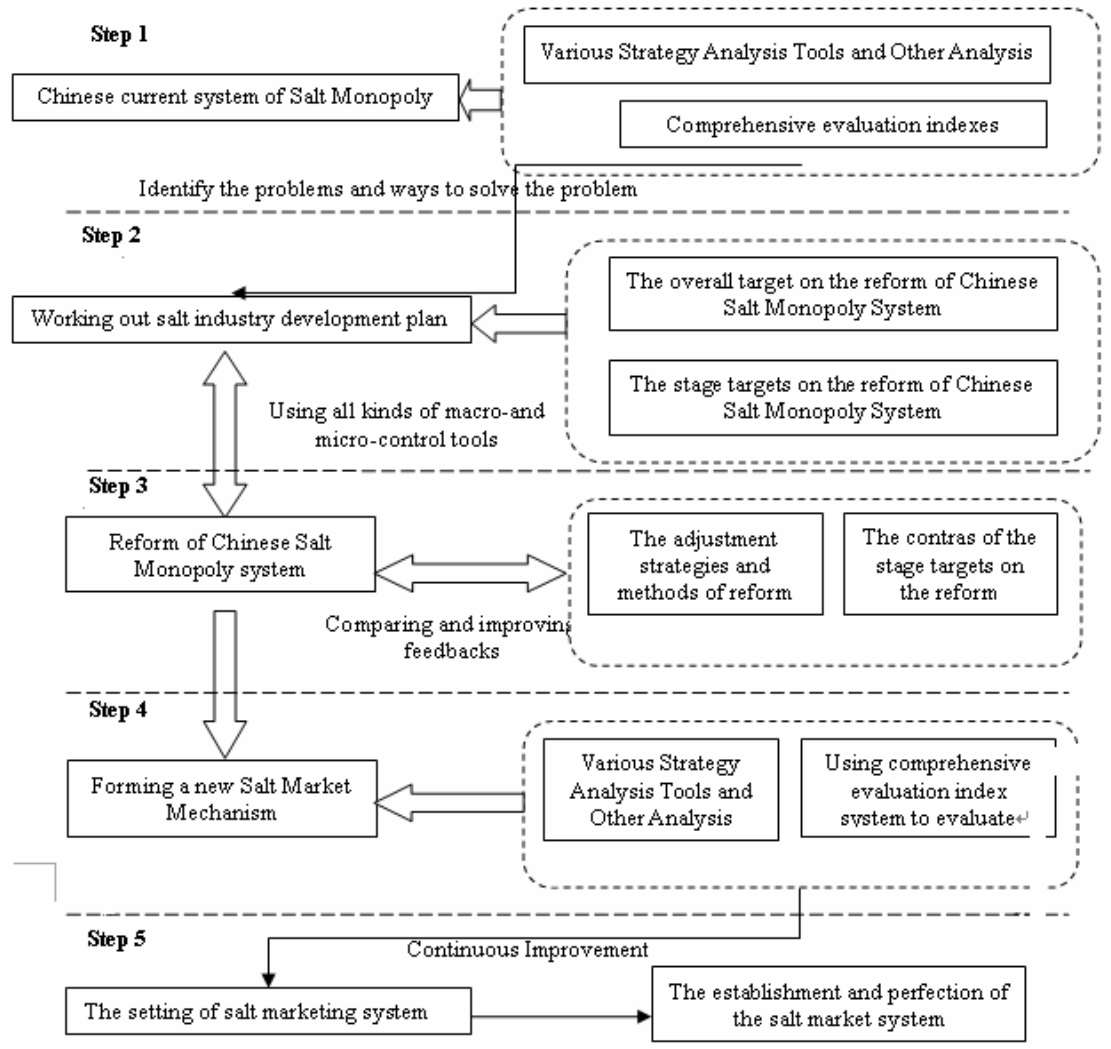

Figure 3 The innovation model of Chinese Salt Monopoly mechanism

3. THE EVALUATION ON THE INNOVATION MODEL OF CHINESE SALT MONOPOLY MECHANISM

3.1 The principles of evaluation

During evaluating the innovation model of Chinese Salt Monopoly mechanism, it need to need to uphold the following principles: the principle of the evaluation policy consisted with the reform idea; the principle of the evaluation being periodic and institutionalized; the principle of the evaluation information being digitizing and modeling; the principle of comprehensive, objective, respectively evaluation; the principle of grasping the key indexes to evaluate.

3.2 The evaluation system

3.2.1 The evaluation system of Salt Monopoly mechanism innovation model

Is the Salt Monopoly mechanism innovation model successful? What about the operation of the market mechanism? All of these can be analyzed by a variety of evaluation methods. The market mechanism mainly consists of the price mechanism, the competition mechanism and the supply and demand mechanism, the main manifestation of whose operation is the development of the industry, and there are many indexes to reflect the quality of the development state. This paper mainly takes the thoughts of Balanced Scorecard (BSC)[8,9] and Analytic Hierarchy Process (AHP)[10,11,12] as reference to construct the evaluation methods system of Salt Monopoly mechanism innovation model, shown in Figure 4.

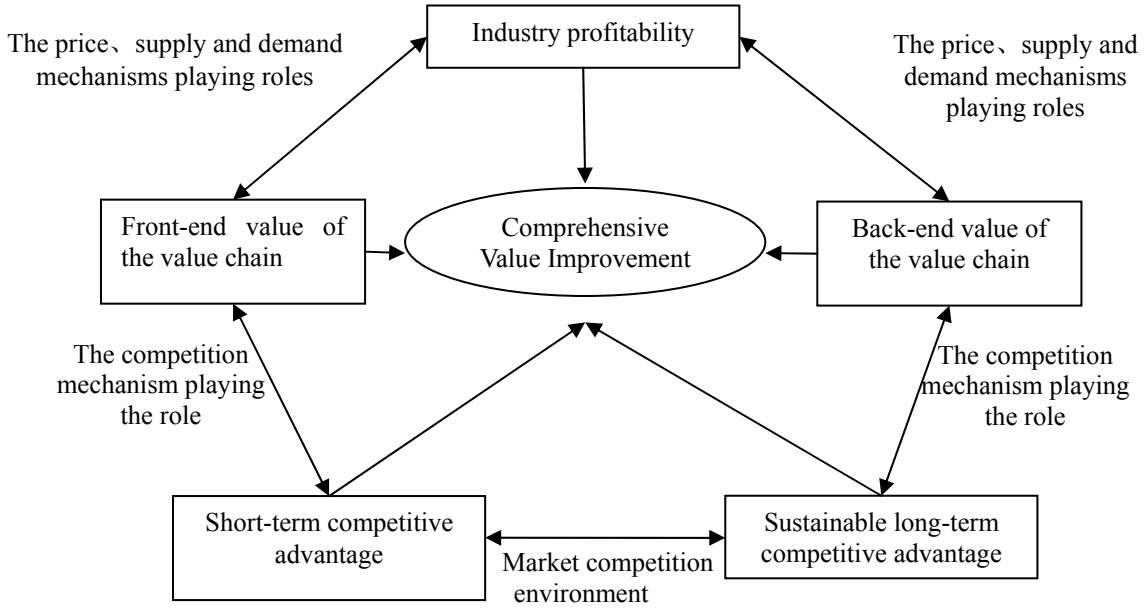

Figure 4 The evaluation system of Chinese Salt Monopoly mechanism innovation model

3.2.2 The evaluation index system of Salt Monopoly mechanism innovation model

The output element of Salt Monopoly mechanism innovation model outputs multi-values, which is composed of five parts. It is salt market system. Therefore, the evaluation index system can be set to five value dimensions, which are industry profitability, front-end value of the value chain, back-end value of the value chain, Short-term competitive advantage and sustainable long-term competitiveness.

1st. The industry profitability indexes can be measured by four indexes, which are the cost profit ratio, the net assets income rate, the investment reward rate and the growth ratio of sales.

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2nd. The front-end indexes of the value chain are: the quantity and quality of products and services provided by enterprises, the technology development ability of enterprises; the back-end indexes of the value chain mainly are: customer loyalty, the rate of new customers, customer satisfaction.

3rd. The indexes of short-term competitive advantages include: market share, sales revenue share of new products, price competitiveness.

4th. The indexes of long-term sustainable competitive advantages include: the industrial intellectual capital ratio, the reserve ratio of industrial new products, the industrial knowledge innovating capability and the industrial knowledge transforming capacity.

The basic idea of using this method to evaluate Salt Monopoly mechanism innovation model are, first of all, calculating the index value according to the index basic formula, and then scoring on various indexes, the indexes those couldn't be directly calculated can be comprehensively graded directly through the expert grading method.

3.3 The evaluation method of Salt Monopoly mechanism innovation model

This paper will use a composite DEA method, measuring the situation of Salt Monopoly mechanism innovation model from the perspective of the relative efficiency.

Ideas are as follows: supposing that there are n DMUs (decision making units), which have m types of input, s types of output, x_i (i = 1,…, m) expresses that the i-th type is input, y_r (r = 1,…, S) expresses that the y type is output, letting D denote this index system:

$$D= \{x_1 , \ldots , x_m ; y_1 , \ldots , y_S\} \qquad (1)$$

x_{ij} expresses the input quantity of the j-th unit in the i-th type, Y_{rj} expresses the input quantity of the j-th unit in the r-th type.

$$x_j=(x_{1j} ; x_{2j} , \ldots , x_{mj}) \qquad (2)$$

$$Y_j=(Y_{1j} ; Y_{2j} , \ldots , y_{sj}) \qquad (3)$$

Based on the purpose of research, the DEA evaluation model should be selected, so we can write the corresponding fractional programming model. Since the scale efficiency doesn't be considered in this paper, so the C^2GS^2 model based the output is selected. To evaluate the effectiveness of the J_0 DMU, the fractional planning system such as (3-7) indicated.

If any of DMUs used the above model to obtain its effectiveness coefficient, we can obtain a vector using effectiveness coefficient of each unit as component, which is:

$$\theta_{(D)}=(\theta_{1(D)}, \ldots \theta_{n(D)})^T$$

$$\begin{cases} \text{Min} \quad \dfrac{\omega^T X_{j0} + \omega_0}{\mu^T y_{i0}} = \theta_{j0\,(D)} \\ \text{s.t.} \quad \dfrac{\omega^T X_k + \omega_0}{\mu^T y_k} \geq 1 \qquad k=1, \ldots, n \qquad (4) \\ \omega \geq 0,\ \mu \geq 0 \end{cases}$$

Di expresses the indexes set which removed the output of the i-th (i = 1,…, t) type. So using the method of DEA on Di, we can obtain the coefficient of each DMU and the vector θ (Di).

$$\theta(D_i)= (\theta_1(D_i) , \ldots , \theta_n(D_i))T \quad (i=1,\ldots,t)$$

It can be proved that, $\theta (D) \geq \theta (D_i)$

Clearly, the values of θ (D) and θ (Di) are related to the indexes, showed some laws of changes. We

can find the information on DMU effectiveness about changes of indexes from this vector group, and the methods of extracting this kind of information can be achieved by establishing functional of θ(D) and θ (Di) (i = 1,…, t). For the inefficient unit j_0, we would like to know which output has the greatest impact on this DMU effectiveness, so that we can improve it purposefully.

Firstly, calculate j_0 (D_i), and $S_i = [\theta_{j0}(D) - \theta_{j0}(D_i)] / \theta_{j0}(D_i)$. If it has been obtained $S_1, S_2, \ldots, S_n$, then the inefficient unit takes i_0, to:

$$S_{i0} = \min (S_1, S_2, \ldots, S_n) \qquad (5)$$

So i_0 is an index which has a great effect on the inefficient of J_0, the actual may be Yi. ◦ The output was too small or the output ratio was too low. When the outputs of all units are regarded as 1, only measuring the input effectiveness, model (3-7) is equivalent to the following model:

$\omega^T X_{j0} + \omega_0 \theta_{j0}(D)\ \mu^T y_{i0}\ \omega^T X_k + \omega_0$

$$\begin{cases} \text{Max } h_0 = \sum_{r=1}^{n} u_r y_{i0} \\ \text{s.t. } \sum_{r=1}^{n} u_r y_{rj} \geq 1 \\ u_r \geq 0,\ r=1,\ldots,m \end{cases} \qquad (6)$$

y_{rj} expresses the r-th output of the j-th DMU.

This paper measures the effect of Salt Monopoly mechanism innovation model. The ideal situation should be that all aspects will be done best to the extent possible, maximizing scores. So regarding indexes all above as output and using pure output of DEA model and composite DEA method to identify the factors affecting Salt Monopoly mechanism innovation model, so that it can facilitate the salt industry to improve Salt Monopoly mechanism innovation model.

Using five sets of indexes defined in this paper as output, the salt industry can measure the effect of Salt Monopoly mechanism innovation model as a whole or from each level. The output sets 1, 2, 3, 4, 5 respectively corresponds to the indexes those the industry profitability, the front-end value of the value chain, the back-end value of the value chain, short-term competitive advantage and long-term sustainable competitiveness. To acquire all qualitative indexes can use Likert's 1-7 scoring method that internationally commonly used, which prescribes that the range of scoring is 1-7, which 1 expresses the worse performance and 7 expresses the best performance.