

## **A Promising Way of Revamping the State-Owned Enterprises In China**

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### **Abstract**

Chinese state-owned enterprises, which have decades of experience under planning economic system, have been inured to the simple production function far from market. Therefore, when China began to strive for developing the market-oriented economy, the challenge and influence they met are severe. Some experiences have been accumulated in the past years' reform, but how to make the state-owned enterprises more vigorous is still a critical problem that should be solved immediately. This article tries to discuss how to apply the learning organization, a successful management theory and method used in the Western Countries universally, to the organization-constructing of Chinese state-owned enterprises so as to find out a commonly effective means to en vigor the enterprises. The characters and problems of Chinese state-owned enterprises as well as the features of learning organization applied in China are illustrated in the article at first. Then the procedures of building learning organization in a typical enterprise are discussed, aiming at developing the basic principles and commonly used methods of realizing a learning organization. The combination of learning organization and generic structure are developed. Because the principles and methods are rooted in the Chinese realization, it is possible to be applicable to our purpose.

## **A Promising Way for Revamping the State-Owned Enterprises in China**

### **I. History and Realization of the Chinese State-Owned Enterprises**

The state-owned enterprises in China have their own development process in the past 4 decades, which made them quite different from those in Western Countries.

1. Many of them are invested by government, which calls for no economic returns. Therefore, they exist mainly as administrative units, instead of economic ones.
2. Their functions are simple: accepting plans from the higher level without other choices and finishing production task. It is not important for them to have a knowledge of producing for whom or why produce. And they need not to worry about sale, nor the material purchasing -- thus results the supply plan. Under such circumstances, it is natural to regard the completion of the task as the main index.
3. A lot of the state-owned enterprises have a long life-time with low efficiency. Prior to 80s' late years, the Mainland had not a formal company bankruptcy law, as the conception of bankruptcy is thought unfit for the socialism. As a result, we have not the records of large number of enterprises' disappearance, only the ever increasing number of total enterprises. Once a plant is set up by the nation, it never terminates even if it is bankrupted. Obviously, many enterprises built in 50s' have about 40 years' history.

This kind of enterprise model is not adaptable to the global economy development. The central government at last realized the problem, even though it has already thwarted the national economy. Thus the reform and opening policy are dedicated to revise the situation. With the experiences and lessons being collected, we step forward. Last year, the focus was put on the transfer of operational mechanism, and it is effective in the form of law. This means that the obsolete state-owned enterprises will never exist from now on. And the enterprises must expose themselves to the market, of course, without the protection of the nation. Their existence is determined by their profit directly. They are thrown into a competitive environment.

The various changes bring about huge shock and challenge to the enterprises. Above all, state-owned enterprises must complete their transfer in function, i.e. from simple production model to production and operation -- this demand has been prompted for some years, but it does not become crucial until the objective model of "Socialistic Market Economy" is ascertained. It is clear that these enterprises should and must produce the best-selling product and improve their ability to develop new product in order to survive. And they must obtain the required material from the market. Factors that are ignored such as price, cost, quality before will be positioned properly. This means that some natural mindset in the past must be turned over. Simply speaking, state-owned enterprises are more and more similar to the companies in the Western Countries in respect of function and action. Therefore, they should absorb the successful management experiences and techniques.

On the other hand, statistics and studying on organization theory in last two decades showed that the largest industrial enterprises commonly have an average life-time. The enterprises which approach this limit hardly could avoid the depression in efficiency. This limit was thought to be about 40 years. The effective way to avoid this kind of depression is innovation, mainly in management as well as in technique. Only by the way of innovation, can the organization is made regeneration and able to

sustain their vigor so as to exceed this limit. This concept is very important to the state-owned enterprises in China. The obvious reason is that they all have a long life-time with low efficiency.

The success of the application of learning organization of systems thinking advocated by Dr. Peter M. Senge in many famous companies such as Royal Dutch Shell, IBM, Apple shows that the theory is effective in the renovation of ideology in management thoughts and in management innovation. Therefore, it is promising that we apply it to Chinese state-owned enterprises to enforce their vigor and complete the transfer of operational mechanism successfully.

## II. Application of Learning Organization to Solving Problems of Chinese State-Owned Enterprises

Learning organization is an organization that is able to channel the energy of environment change into a force for organizational growth and development. That is to say, it is an organization with a good learning ability. The process of organizational learning, just as that of personal learning, includes goal-setting, action, comparison ( by which to accumulate the experiences ), more effective action and more suitable goal. It is also a feedback process. In a non-learning organization, aging is some kind of burden to thwart itself. The longer the age, the more stubborn the collecting unfitted mindset. This accustomed wrong mindset makes its object further deviated . When some limits arrive, it is unavoidable for it to collapse. Instead, a learning organization is different. Its age is an accumulated resource in forms of experiences and lessons, which is beneficial for it to act correctly. The pursuit for innovation is a shared characteristic of all learning organizations, only by which could the organization maintain energetically.

Dr. Senge has suggested five disciplines for improving the organizational learning ability : systems thinking, shared vision, shared mental model, personal mastery and team learning. The soul of the disciplines is systems thinking. Building a SD microcosm of the organization to improve and accelerate the learning process is a concrete method, the famous microcosm -- learning laboratory such as CLL ( Claim Learning Lab. ) of Peter M. Senge and Bio Industrial Products Laboratory of J. Morecroft.

It is necessary for organization to build computer-based SD model, not only for solving practical problems , but also for doing with effective systems thinking. This will involve the correct attitude to use the computer. We think that technique of computer as a hardware core of numeric simulating technology plays an important role in software environment of organizational learning. But it is also our opinion that it itself should neither be our focus, nor the main content studied. During the process of organizational learning it enhances human brains. But were the interest of the learner absorbed in it, effective learning would not be achieved. Therefore, when we set up the learning organization of Chinese state-owned enterprises, two aspects are given extra consideration. First, it is not necessary to introduce the computer preliminarily before the real purpose of the learning is understood .

The second is to speed up the process of modeling by application of generic structure theory. Considering the similarity in structure of state-owned enterprises ( in fact, this similarity exists in the manufacturing system universally ), we created some generic substructures. When building a model of some concrete enterprise, what is needed to do is to select the proper substructures, tailoring and complementing them. We will introduce the division of the generic structure. According to the functional feature of the manufacturing industry, an enterprise organization is divided into 5 substructures: marketing, manufacturing, finance and accounting, personnel (human resource) and R&D (research & development ), as can be seen in Figure 1. After function and behavior analysis of each substructure and coupling among the substructures are deeply studied, some basic sectors are developed. Obviously, it is more effective to build model based on generic substructure than to do it

from naught. And it facilitates people to enter the essential learning stage quickly, instead of spending large amount of energy on modeling and technical skill of computer simulation.

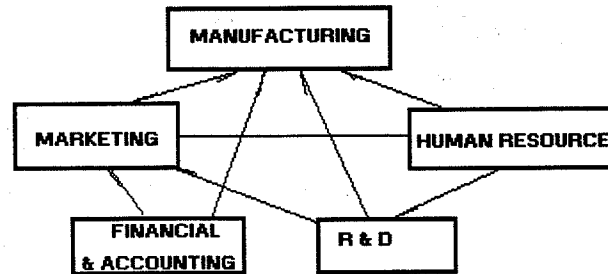


Figure 1. Generic Substructure of a Typical Enterprise

At first, the practice of setting up a learning organization for typical state-owned enterprise is introduced, involving two sections: modeling -- illustration of generic structure by example of the personnel sector -- and five disciplines practice. This is one of the bases of our developing disciplines and procedures for state-owned enterprises to build Learning Organization in common sense.

### III. Case -- The Practice of Creating Learning Organization in Shanghai Pump Factory

#### 1. Background.

Shanghai Pump Factory has decades of history. Fits of engine are its main products. Though it is better compared with the other enterprises of same trade in regard to benefit and sale, there are many problems.

<1>. Contradiction between marketing and manufacturing. Low productivity caused by poor technique and equipment condition unenable the products to meet the requirement. On the other hand, it also makes adjustment of technique lag the market demand, which causes some business lost. As a result, the production waves strongly.

<2>. Training is not considered enough. This has negative effect not only on the whole skill level, but also on activity of the employees. Our personnel example later will focus on this.

But, these two problems are not special for the enterprise, they exist in many state-owned enterprises universally. Therefore, it is important to emphasize them.

#### 2. SD Modeling.

It is helpful to build a SD model to describe the complex structure and mechanism in organization not only for managers to acknowledge and understand problems, but also to improve their systems thinking ability. Therefore, modeling weighs in realizing learning organization.

It is not only the problem being resolved of a particular enterprise, but search for an effective way to en vigor the whole state-owned enterprises is also our goal. Subsequently, we pay more attention to abstracting the common sense. And it is not our task to describe the model in total in this paper. Therefore, here we will introduce the procedures of applying generic structures to building the model by example of personnel sector ( i.e. human resource ). In order to build it rapidly, we divide the whole system into sectors. Each substructure is built separately at first, then they are combined.

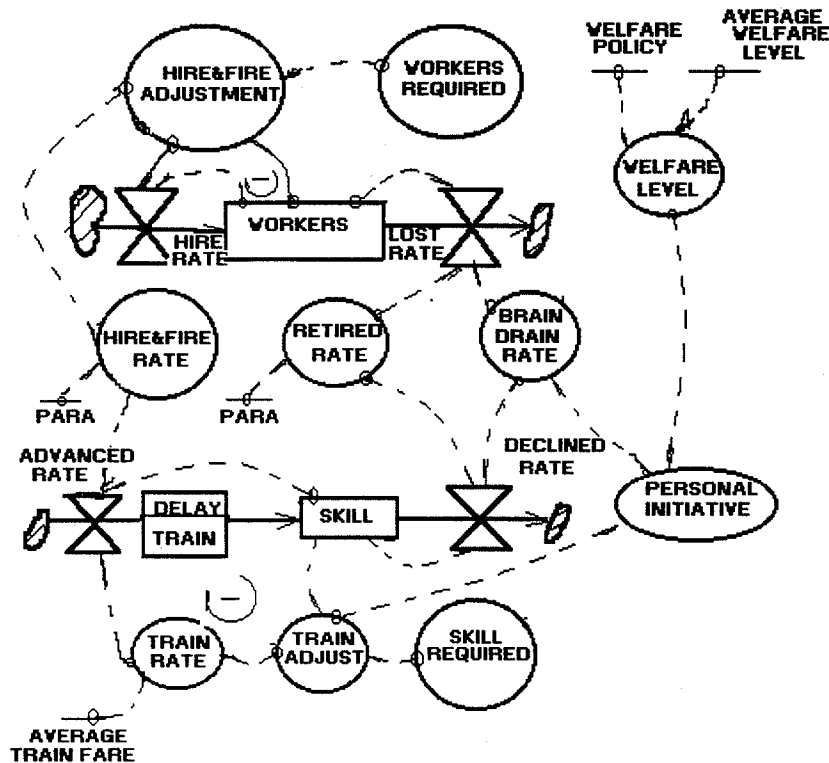


Figure 2. Personnel Sector Flow Diagram

This system shared the same structure as that of other manufacturing corporates. It is divided into five sectors: manufacturing, marketing, personnel, financial and accounting, R&D, i.e. five substructures. Besides they share the commonness of the generic substructures, each sector possesses some features which are fit for the organization of its own. The basic model can be obtained quickly by combining the commonness and features. As a example, human resource sector is used to illustrate the modeling procedure.

The generic substructure of personnel includes two level variables: number and skill of employees, represented by WORKERS and SKILL in the figure, which is used to reflect the requirement of quantity and quality of human resource by the company.

Figure 2. shows the basic generic substructure of personnel sector. The main loop of WORKS is negative feedback loop adjusting to desired number. Hire and fire adjustment, retirement and the brain drain are involved. In the past, there is only hiring in hire and fire adjustment. But with the reform of personnel stipulation, both hiring and firing will be involved. So does the SKILL. But besides retirement, the brain drain, hire and fire adjustment, training and personal initiative have great influence on SKILL, as are emphasized by learning organization theory. And activity is effected by company welfare and promotion policies.

Creating a concrete SD model based on generic structure usually includes three steps.

<1>. Generic structure tailoring, including selection, complement, expansion and simplization of some factors and substructures.

<2>. Evaluation and selection of parameters. Most value of model parameters are determined by the practical enterprise, such as RETIRE RATE, AVERAGE TRAINING FARE. This is the main one of the three steps.

<3>. Synthesis of blocks. In each generic substructure, there are some variances named as interface variable, which are the joints between the sectors, such as REQUIRED WORKERS and REQUIRED SKILL, which are decided by manufacturing, marketing, and R&D.

Of course, model built on these is a basic one. It needs to be revised, readjusted, and integrated, but it will be easier than to build it from naught.

### 3. Implementing the Five Disciplines

The five disciplines provide concrete means to improve learning ability of an organization. In Shanghai Pump Factory, we implement these five disciplines in following three respects.

#### <1>. Change the Mental Model and Build Up Shared Vision

In many state-owned enterprises, unfit mental model often hinders advocating advanced management technique and making effective decisions. Managers are so inured to the behavior modes spoiled in the ossified planning economic structure, many of which are unsuitable for requirement of market-oriented economy, as to adapt themselves to the new condition. Subsequently, in order to set up learning organization successfully, it is critical for state-owned enterprises' managers to change their mental model.

To improve the mental model, we built "Inner Special Zone" in the enterprise. In the "Inner Special Zone", people, machines, materials, funds and environment are optimized; and strict management disciplines are adopted. That is to say, it is set up for transfer of operational mechanism. When it is spread, the whole enterprise can improve its management and technique. The "Inner Special Zone" brings all people to change their mind. Effectiveness in it shows that it is beneficial undoubtedly for mental model changing.

#### <2>. Stimulate Personal Mastery and Act Stimulation Mechanism

Personal learning is the base of institutional learning. Without effective personal learning, team learning can not be achieved. Modern management values person more than ever because it has been a common opinion that people have unlimited creativity and activity. Only when the organization provides good environment for personal mastery, could it attract people of capability.

#### <3>. Team Learning -- Improving the Systems Thinking Ability

System, or an organization is not simply sum of single element. An effective organization can combine each individual to obtain the optimal. The team learning aims at approaching accordance to some decision or action by communication. Generic structure and SD model are helpful in team learning. It let managers have a knowledge of the inner problem clearly. By team learning, communication as well as systems thinking ability is improved. It is also important in building Learning Organization.

### IV. Principles and Procedures

Based on practice in Shanghai Pump Factory and some other corporates, we sum up some guides and principles in building learning organization for state-owned enterprises in China.

1. Aiming at crucial problems;
2. The five disciplines focusing on systems thinking are key;

3. Theory and method of generic structure is used to build SD model. And the built models can complement the theory and generic substructure sets.
4. Communication and concord between researchers or modelers and entrepreneurs are emphasized in all stages.

These principles are embodied in the procedures of building a learning organization, as can be seen in Figure 3.

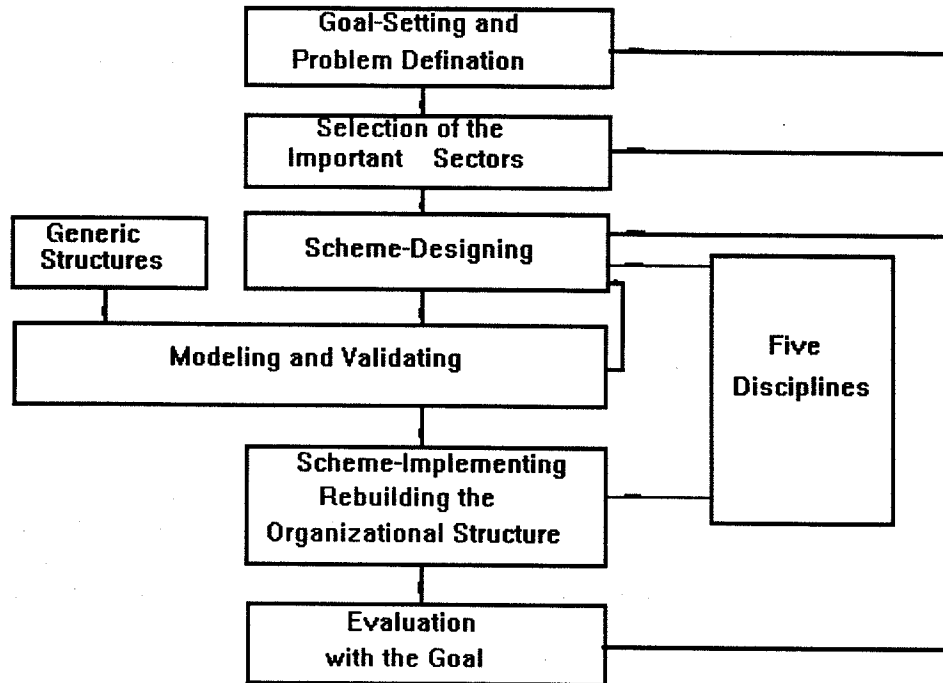


Figure 3. General Procedures of Building Learning Organization for Chinese State-Owned Enterprises

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