

NORWEGIAN UNIVERSITY OF LIFE SCIENCES



Making sense of organizational performance in China: A multiple perspective analysis of the manufacturing industry

Abstract

Despite the growing economic power of Chinese companies, Chinese business practices remain poorly understood and the dominant business paradigm is still not yet formed. The Chinese manufacturing industry has been going through a period with both prosperity and recession in the last 30 years. The Chinese State-Owned Enterprise Reform is an important scheme to turn these enterprises into modern companies and improve their efficiency during the transition from planned economy to market economy. The result of this plan is different to different companies. This paper reviews the impact of this reform on a large SOE, the Shijiazhuang Tractor Plant, which ended in bankruptcy, and gives an overall analysis of the causes by using Multiple Perspective Analysis. The purpose is to illustrate the use of this method to provide a deeper insight of the causes. A framework based on the Multiple Perspective Analysis is developed to find these causes and their relationships. The analysis shows that economic performance is a reflection of all the other influencing factors like technical, organizational, personal, cultural and business environmental factors. In addition, the paper also makes some suggestions of how to overcome the difficulties.

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1 Introduction

The business world is a complicated world. In China, doing business is even more complicated due to the strong regulations or direct interventions from the government. The Chinese state-owned enterprises (SOEs) used to be a strong force in the economic development in China since 1949. Of all the problems China is facing in its transition from a command/planned economy to a market economy, no one is more formidable than the reform of SOEs. This legacy of the old command economy system, designed and established with both technical and financial help from the Soviet Union in the early 1950s, became the main target of Chinese reform policy makers as early as 1980s. After two decades of experiments, while other former socialist countries have technically privatized all their previous SOEs, China is still struggling to find a way to reinvent and reengineer these economic establishments. (Wang, 2004) And the future success of this reform is still uncertain.

In the command economy era, the SOEs served as production organs where raw materials are turned into industrial products. The planning commissions in national or local governments decide for each SOE what needs to be produced and how much. In such a system, the government agencies plan what to produce, supply resources, and distribute the products. This is known as the centralized command economy. As there is no free market per se, there are no free enterprises either. In this sense, a SOE is basically a production place. It has no marketing department, no R&D function, or whatsoever. Accordingly, SOEs in China are called factories, instead of companies or firms in the west business management language.

Shijiazhuang Tractor Plant is a typical state-owned enterprise in China that was founded in 1975. The company's main products include agricultural trucks and tractors, agricultural three-wheel transport vehicles. It is among the top 500 biggest enterprises in China and top 50 in manufacturing industry (Zhang, 1999). In the 1990s, its production of agricultural tractor was in the leading place in China for many years, and its products were exported to Venezuela, Romania, Bulgaria, and Russia. The most powerful TV station CCTV used to make a single program to report the plant as a model plant. In the late 1990s, the Chinese government carried out a new policy which encouraged the big, promising state-owned enterprises to buy out

small state-owned enterprises running under deficit. After the Shijiazhuang Tractor Plant merged with 4 companies with loss, the company itself experienced the biggest hard time in its history as well. In the meantime, the decreasing demand and fierce competition in the market have pushed the company into problems. It finally applied for bankruptcy in 2000.

The merge and alliance program is a part of the SOE reform that was carried out in late 1990s. This economic reform has some big moves in the Chinese economic development. When there is a reform, it must be because there are problems in the previous situation. The Chinese state-owned enterprises used to be a strong force in the Chinese economy. But the development of SOEs has become slower and slower over years. This paper is to make a thorough examination of why a state-owned enterprise like Shijiazhuang Tractor Plant was having problems, what people could do to solve these problems, and how to solve them.

In order to find out the characteristics of the SOEs, there are many studies have been done in this area to find out where the problem lies. Research has identified a lot of problems with these enterprises. For example, they tend to employ excess labor (Boycko et al., 1996), tend to hire top management because of their political connections rather than executive abilities (Krueger, 1990), and tend to have social and political objectives which involve wealth redistribution rather than wealth creation. Other pervasive problems include political interference in an enterprise's operations and decision-making (Kornai, 1992) and the deliberate transfer of resources from companies to politicians and their supporters (Shleifer and Vishny, 1998). Some argue that privatization of SOEs can potentially remedy these problems and create vibrant companies that compete effectively in world markets. While, the corporatization of Chinese SOEs represents an important social experiment in the SOE reform project. Whether or not privatization is necessary for improving SOE efficiency is still under debate. Some argue that privatization is necessary for any significant improvement in the performance of SOEs (Boycko et al., 1996; Nellis, 1994; Shleifer, 1998), while others point out that less radical methods such as deregulation and increased competition, or more routine steps such as the use of management performance contracts, can effectively substitute for outright

privatization; that privatization is not the only effective solution for SOE restructuring (Yarrow, 1986; Vickers and Yarrow, 1988).

However, these studies focus mostly on the relationship between the ownership of the enterprise and efficiency in SOEs. They did the research based on “hard data”, by comparing between hundreds of SOEs in China. These studies indeed can explain the problems of SOEs in the macro scope. But few studies have been done on individual companies in a specific industry. Even though some of the SOEs went to bankrupt in the end, it doesn't mean they failed due to the same reasons. Besides, there are other SOEs that grow even bigger and better. We cannot say one common problem can result the same outcome of all SOEs. How people deal with these problems is crucially important. Therefore, in this thesis, my question is “Is Shijiazhuang Tractor Plant fated to die after the SOE reform in China?” I'm going to examine the plant from different perspectives and identify the problems that lie behind Shijiazhuang Tractor Plant. I'm going to find out if they are common problems for all SOEs in the industry; if not, what could have been done to save the enterprise.

The reason for picking this topic as a challenge is that state-owned enterprises in China have made great contributions to the Chinese economy, but its collapse is a common phenomenon in the past 10 years. The proximal cause of this collapse was economics, but for the management, a deeper understanding of the ultimate causes can be important in avoiding unfortunate outcomes in other SOEs. It can also explain the changes in the economic structure in China and in some degrees predict the future direction of the economic development. This is very useful for us as social economists to study the “miracle” of Chinese economy as a whole, and find potential problems in the process of development. This paper can also be a reference for people who want to do business in China so they can learn something from the past and stake the right resources in the right place and at the right time.

In this paper, the case of “Shijiazhuang Tractor Plant” will be studied in order to identify the specific problems in the micro level. Before diagnose begins, the first section will be previous research and the methodology of this paper, followed by the introduction of the case and the development of the plant. A multi-perspective

approach is applied here is because that the Chinese SOEs do not function in an exclusively economic market, other non-economic factors also play an important role. A few references are introduced to identify these non-economic factors in this paper. In the analysis section, two metaphors based on “Images of Organizations”, a classic management literature by Gareth Morgan (2007), will be used to apply to the organization. The paper will also study the trends in each perspective and compare them between the company level and the national level. When the problems have been identified, a series recommendation will be given based on the “Balanced Scorecard” developed by Kaplan and Norton. In the end, a conclusion and some constructive suggestions will be provided.

2 Previous Research

The nature of the problem of business management is that it is complex and it has many dimensions. The traditional analysis of the bankruptcy of a company is mostly based on finance/economic dimension where the researcher uses an econometric method to “calculate” which factors are most relevant to the company’s outcome. The Journal of Business published an article by Shumway (2001) entitled “Forecasting Bankruptcy More Accurately” proposed a model called “Hazard Model” which showed us factors like market size, past stock returns, and idiosyncratic returns variability were all related to bankruptcy. Tobacman and Skiba (2009) researched the relationships between payday loans and bankruptcy and found that the payday loan can result bankruptcy of a company. Another research named “Failing Company Discriminant Analysis” by Marc Blum (1974) used The Failing Company Model to assess the probability of business failure. Each variable in the model including liquidity, profitability, and variability were selected on the basis of financial theory. The analysis was used to test the hypothesis that the Failing Company Model can distinguish between failing and non-failing firms. The results showed that the model distinguished failing from non-failing firms with an accuracy of approximately 94 percent, when failure occurred within one year from the date of prediction. These findings are all focused on the financial and/or economic side of the company. As I stated in the introduction, every failed organization has gone through a different path although the result is the same. There can be other causes that root in the organization which can lead to an economic failure. Therefore, the problems/causes need to be identified using different perspectives.

Albert Einstein (1926) said, “It is the theory through which we observe a situation that decides what we can observe.” So, in order to look at a complex problem as clear as possible, a Multiple Perspectives Approach (MPA) is required to analyze the situation. The Multiple Perspectives Approach is attractive for two reasons. Firstly, its underlying philosophy is well expressed and very satisfactory from a systems point of view. It attempts to incorporate the methods of inquiry of four philosophical schools. The analytic-deductive school, represented by Leibniz, suggests that the inquirer creates networks of hypotheses and proceeds to build on these hypotheses

until logic reveals a counterhypothesis that invalidates a part of the net. (Leibniz, 1765) The inductive-consensual school, represented by Locke, gives more weight to data than theory. The Lockean inquiring system searches a single truth through agreement and consensus. (Locke, 1690) The multiple realities school, represented by Kant, gives equal weight to data and theory. It recognizes that there are multiple ways in which a problem may be analyzed using multiple models that can be applied to the data. (Kant, 1781) The dialectic school, represented by Hegel, sees the truth emerging from opposing views. Debate between different worldviews is seen as the only way to develop theses and antitheses to arrive at a synthesis that accommodates both worldviews. (Hegel, 1874) These schools of inquiry are integrated and enriched by what Mitroff and Linstone (1993) introduce as Unbounded Systems Thinking (UST), based on Singer's and Churchman's work (1971) that refers to the interrelatedness and inseparability of all systems.

Unbounded system thinking is a method of listing as many perspectives as possible on a situation when analyzing it. This approach is introduced to decision support system practitioners by Courtney (2001), who uses it as a basis for a new paradigm in decision support. The UST is what Mitroff and Linstone call the "fifth way of knowing". This inquiry system stays away from the traditional hierarchical ordering of the sciences and professions and replaces this linear order with a circular concept or relationship among the various sciences and professions. Within UST all previous inquiry systems (inductive-consensual, analytic-deductive, multiple realities and dialectic inquiry systems) are actively utilized and each presupposes all others, thereby creating interdependency.

The UST is translated into an approach called the "Multiple Perspectives Concept or Method" (Mitroff and Linstone, 1993). This approach classifies the possible perspectives on a situation into the categories of Technical, Organizational, and Personal. The Technical perspective (T) reflects the scientific method as found in science and engineering, and thus any rational approach to problem-solving. The Organizational (O) and Personal (P) perspectives represent the respective subjective views of the groups and individuals involved. Mitroff and Linstone's discussion and examples focus on the T, O and P perspectives, while in Courtney's decision-making

paradigm, he maintains that equal consideration must be given to the Ethical and Aesthetic perspectives.

Today, organizations need to consider the larger picture of the organizational environment and take a long-term view in the complexity of problem-solving. Ethical issues are considered as the key source of an organization's long-term success. Verschoor (1998) studied the 500 largest U.S. public corporations, focusing on the link between a corporation's overall financial performance and its commitment to ethics. The empirical study shows that there is a statistically significant linkage between a management commitment to strong controls that emphasize ethical and socially responsible behavior on one hand, and favorable corporate financial performance on the other. The interpretation of aesthetic perspective can be different. Most commonly, people state the aesthetic value as a view to the world from an artistic, interpretive lens and it seeks to find form and harmony in a given scenario.

"Images of Organization" is a book by Gareth Morgan. The author provided a rich and comprehensive resource for exploring the complexity of modern organizations internationally, translating leading-edge theory into leading-edge practice. Morgan's metaphors were based on different images that help theorists and managers understand the nature of complexity and conflict of organizational life in a way that they never thought before. Morgan believes that one can better understand organizations by recognizing that organization and management theories are based on images or metaphors that prompt one to view organizations through a particular lens. These metaphors help develop a deeper understanding and give new perspectives to both theorists and practitioners. In this paper, some of his perspectives in this book will be applied to Shijiazhuang Tractor Plant and conduct the analysis from different points of views.

The second reason for the Multiple Perspectives Approach's attractiveness is that it can be used to address three of the sociological paradigms given in the classic paper by Burrell and Morgan (1979), namely the functional (technical perspective), interpretive (organizational and personal) and radical humanist (ethical) paradigms.

Therefore, a cluster of robust solutions can be drawn and explained by the MPA. The MPA is an attractive framework but has been found to pose a major challenge, that it is a philosophy more than a method, and contains little guidance as to how it should be implemented in practice. "Essence of Decision" is an analysis by political scientist Allison (1971). He used the Cuban Missile Crisis as a case study for future studies into governmental decision-making. He constructed three different lenses through which analysts can examine events: the "Rational Actor" model, the "Organizational Behavior" model, and the "Governmental Politics" model. Through these different perspectives, the author suggested insightful explanations for the outcome of the event. This is actually quite similar to the T-O-P perspectives. Both references will be the foundation of the analysis framework that is to be developed in the next section. The Balanced Score Card is also a useful approach to keep track of the overall performance of a company. We will come back to this concept in the subsequent chapter.

To summarize the previous researches, Spranger (1966) raised a Value Based Decision Making Model which include six different types of values/perspectives that individuals exhibit. A summary of the perspectives generated by Spranger's values and their parallels to both Mitroff and Linstones's TOP model and Courtney's Decision making paradigm is presented in Table 1.

	Perspectives					
Spranger	Theoretical	Social	Political	Religious	Aesthetic	Economic
Mitroff and Linstone	Technical	Organizational	Personal			
Courtney	Technical	Organizational	Personal	Ethical	Aesthetic	
Worldview	Scientific, rational	Collective, philanthropic	Individual, power	Philosophical, moral	Artistic	Practical
Goal	Problem solving, product	Action, stability, process	Power, influence, prestige	Equitability, elevation of mankind	Harmony, artistry	Usability, pragmatism
General Characteristics	Empirical, rational, seeks the "truth"	Altruistic, philanthropic, seeks human interaction	Competitive, ego-centric, seeks power	Moral, ethical, seeks unity with the universe	Diverse, appreciates beauty, seeks form and harmony	Utilitarian, wealth-oriented, seeks tangible goods
Decision Criteria	Best fit to data	Societal gain	Individual gain	Highest level of understanding	Highest level of harmony and design	Highest cost/benefit ratio

Table 1: Extending Mitroff and Linstone's TOP Model and Courtney's Paradigm with Spranger's Values

3 Framework for Analysis

As mentioned in the previous sections, the economic/financial breakdown is the proximal cause of the company's bankruptcy. Other factors like technical, organizational, personal, ethical and aesthetic causes can all lead to the economic failure, while these causes can also affect each other. But since the aesthetic perspective is difficult to apply in the context of this paper, a new perspective called environmental view has been developed in this framework. An environmental perspective captures the same value of the aesthetic view in seeking a harmony in a given scenario; it also gives readers a more specific picture of the business environment around the organization. The religious perspective is replaced by cultural perspective which captures the specific cultural characteristics of doing business in China. These perspectives will be examined by five factors in relation to managerial responsibility. The analysis matrix will be looking like this:

	Technical	Organizational	Personal	Environmental	Cultural	Economic
Planning	✓	-	-	✓	-	✓
Organizing	✓	✓	✓	-	✓	✓
Commanding	-	✓	-	-	✓	✓
Coordinating	-	-	✓	-	✓	✓
Controlling	-	-	-	✓	-	✓

Table 2: Analysis matrix

These five functions of management were first identified by Henri Fayol (1918). He theorized that these functions were universal, and that every manager performed these functions in their daily work. The analysis will be conducted in this way so that it offers a clear distinction between different managerial responsibilities and different perspectives. Below, a short description of the five functions is presented.

- **Planning:** Managers must plan for future conditions, develop strategic objectives and secure the achievement of future goals. Therefore, managers must evaluate future contingencies affecting the organization, and shape the future operational and strategic landscape of the company.
- **Organizing:** Managers must organize the workforce in an efficient manner and structure and align the activities of the organization. Managers must also

train and recruit the right people for the job, and always secure a sufficiently skilled and educated workforce.

- **Commanding:** Managers must supervise subordinates in their daily work, and inspire them to achieve company goals. Likewise it is the responsibility of managers to communicate company goals and policies to subordinates. The commanding of subordinates should always be consistent with company policies, and every manager should treat subordinates in line with the standards of the company.
- **Coordinating:** Managers must harmonize the procedures and activities performed by the company, meaning that every activity of each organizational unit should complement and enrich the work of another.
- **Controlling:** Managers must control that company activities are in line with general company policies and objectives. It is also the responsibility of the manager to observe and report deviations from plans and objectives, and to make initiatives to correct potential deviations.

The Value Based Decision Making Model by Spranger includes all six perspectives outlined here which is an integral part of an individual’s thinking, and therefore must be acknowledged in organizations whose members base their behaviors on them. Figure 1 presents the VBDM model that extends Courtney’s paradigm by including six perspectives.

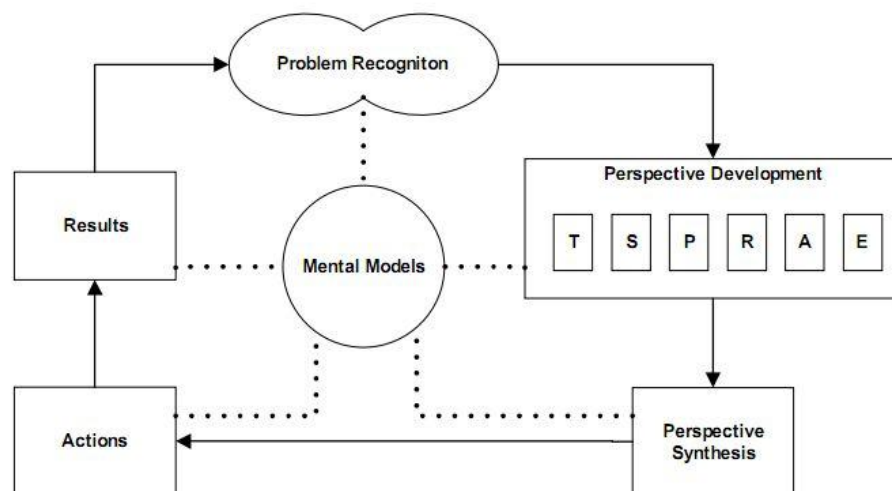


Figure 1: The Value Based Decision Making Model

A traditional problem-solving or decision-making approach is to react to problem recognition by formulating alternative solutions quickly from generally known information and choosing a solution to implement. Two problems are associated with this method. The first is that failure to investigate all perspectives may lead to incorrect or incomplete problem definition or a lack of appropriate solutions. The second is that the process of decision-making ends with implementation, this lack of feedback may prevent outcome-based learning. (Hall, Davis, 2006) The VBDM-model addresses both problems by advocating the use of perspectives and by providing for a continuously updated mental model and therefore provides more reliable suggestions and results of the problem. This is also what this paper is trying to achieve.

4 Methodology

4.1 Case Study

In order to give a detailed analysis of the causes and solutions of a complex problem, case study is the most applicable methodology for my research. Case study research excels at bringing us to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research. Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationship. In this paper, a case study will be provided as a method to examine the contemporary real-life situations of the Shijiazhuang Tractor Plant and provide the basis for the application of ideas and extension of methods.

Critics of case study method believe that the study of a small number of cases can offer no grounds for establishing reliability or generality of findings. That is, if the measurement is consistent, would the testing instrument generate the same result in similar circumstances? Another problem of case study is the measurement validity which addresses how accurately the instrument measures the outcome. Some feel that the intense exposure to study of the case biases the findings and dismiss case study research as useful only as an exploratory tool. Yet researchers continue to use the case study research method with success in carefully planned and crafted studies of real-life situations, issues, and problems. Reports on case studies from many disciplines are widely available in the literature.

4.2 Procedures

There are different ways of conducting a case study. The experienced case study researchers Stake (1994), and Simons (1997) have written about case study research and suggested techniques for organizing and conducting the research successfully. This introduction to case study research proposes six steps that should be used:

1. Determine and define the research questions
2. Select the cases and determine data gathering and analysis techniques
3. Prepare to collect the data
4. Collect data in the field

5. Evaluate and analyze the data
6. Prepare the report

By now this paper has gone through from step 1 to step 4. The research question was defined as “What lead the Shijiazhuang Tractor Plant to Bankruptcy”. The analysis will be done using Multiple Perspective Approach, which has been explained in Chapters 2 and 3. Data was collected by interviews of the former director of the company. In the next section, the evaluation and analysis of the data will be presented based on the framework that was developed in Chapter 3.

4.3 Case: Shijiazhuang Tractor Plant

“To be, or not to be, that is the question” This is a quote from Hamlet by William Shakespeare but it could be the question for all state-owned enterprises in China that have been struggling for their survival in the industry. Shijiazhuang Tractor Plant is one of these state-owned enterprises that eventually had to choose “not to be”.

Shijiazhuang Tractor Plant was founded in 1974. The plant started operating and producing “Hebei-55” tractors in 1977. At that time it was still command economy in China where the government decided what and how much the plant produces. Everything was fixed. There was no marketing at all. The government assigned how much and to where they were going to sell. In 1981, there was a big structural change in the countryside in China. The “Household-responsibility system” was put into practice. This requested the local managers held responsible for the profits and losses of the enterprise. It was the first move of carrying out the transition to market economy from planned economy. As a result, from the year 1983 the plant began to produce “Hebei-120” and “Hebei-150” compact 4-wheel tractors, two updated models of the former, based on the market demand. The plant then went through 4 different periods.

1987 – 1994:

This period is called the “contract responsibility system” period. In 1986, the prices of raw materials went up, the market was weak, and the plant couldn’t make profit on its sales. In order to improve this situation, Shijiazhuang Economic Committee carried out a plan to sign contracts with the plant to meet the expected production.

The contract period was 4 years, from 1987 to 1991. In 1990, Shijiazhuang Tractor Plant acquired a local automobile parts corporation to enhance its supply chain. In 1991, the plant successfully fulfilled the contract production and began to make profit again. But this didn't last long. In the second half of 1992, the plant went into trouble of various reasons. Weak market performance and lack of marketing were the main reasons for this recession.

1994 – 1997:

The municipal Party committee made some changes in the management board of the plant in June, 1994. They appointed a new person Gu Quancheng as the director of the plant. From October of 1994 to December of 1997, he led the plant into a new period – “The Second Start-Up” period.

As a result of the cohesive force of the whole enterprise, the plant began to make profit again after the first three months. By the end of 1995, Shijiazhuang Tractor Plant won the first place of both production and sales nationwide. This plant successfully went from the hard time to a new era. In 1997, the plant acquired several other machine works that were having a hard time, including Shijiazhuang Diesel Engine Plant, Shijiazhuang Steel Ring Plant, Shijiazhuang Machinery Plant of Light Industry, and Shijiazhuang Automobile Corporation. In the same year they founded Tiantong Group Co., Ltd, which was the first group corporation that started from losses in Hebei Province.

1998 – 2001:

In 1998, Shijiazhuang Tractor Corporation speeded up the pace of enhancing major business, separating secondary business and services so that they could grow together. The company also designed and produced products according to the different market demand in different areas. By the end of the year, the company ranked at the first place again in number of production and sales in the industry.

From 1999, the market for agricultural tractors began to shrink. Prices went down. The old “120”, “150” models couldn't meet the demand for more powerful tractors. More and more state-owned enterprises like Shijiazhuang Tractor Plant had to

suspend production. In 2000 the situation became worse. The whole agricultural industry was in the period of restructuring. The price of tractors in the market was a mess. The company could not afford selling product at a price lower than its cost. As a result, the production began to shrink rapidly. In the beginning of 2001, the company was not able to pay its staff. Great number of human resources began to lose due to the bad situation. In the co-ordination of Shijiazhuang Municipal Government, the company cut 1000 staff for the first time.

2002 – 2010:

All productions were stopped from 2002. The acquisition of the other companies resulted in big debt for Shijiazhuang Tractor Corporation. After a consultation with the municipal government, the company agreed to sell its plant area to the Lands Bureau. A big part of this income went to repay salaries to the staff. The rest was used to purchase a small area land to build new plant in the suburb of Shijiazhuang. In 2004, another 1200 staffs were axed in order to cut down the labour cost. The company had to redesign its operating direction. The new plan was to produce reaping machine, engraving machine, and freezing machine for medical use in alliance with three other companies. But due to the lack of investment and technology, none of these got success. In 2007, Shijiazhuang Tractor Corporation filed for bankruptcy. After three years of accessing the assets and debts, the company went bankrupt in 2010. This was just another state-owned enterprise in this industry that went into an end.

5 Analyses

The case can be stated by a few paragraphs but the development of the plant is actually a long and complicated process. The plant has experienced the most exciting 30 years in the Chinese economic history. China has become a new and leading economic power during the last 30 years. There are also huge changes behind this phenomenon, in the country's policies, in the plant itself, and in its people. It is of great importance to identify these changes in order to predict where the Chinese economy is going in the future. This section is going to give a detailed analysis of the case, namely the Shijiazhuang Tractor Plant, from six perspectives based on Spranger's VBDM model to have an inside look of what was going on in the company and what made the company have to come to an end.

The core perspectives among the six perspectives I have chosen are the technical, organizational and personal perspective that was raised by Mitroff and Linstone. There are close relationships and interactions between these perspectives as shown in the figure below (Linstone, 1999):

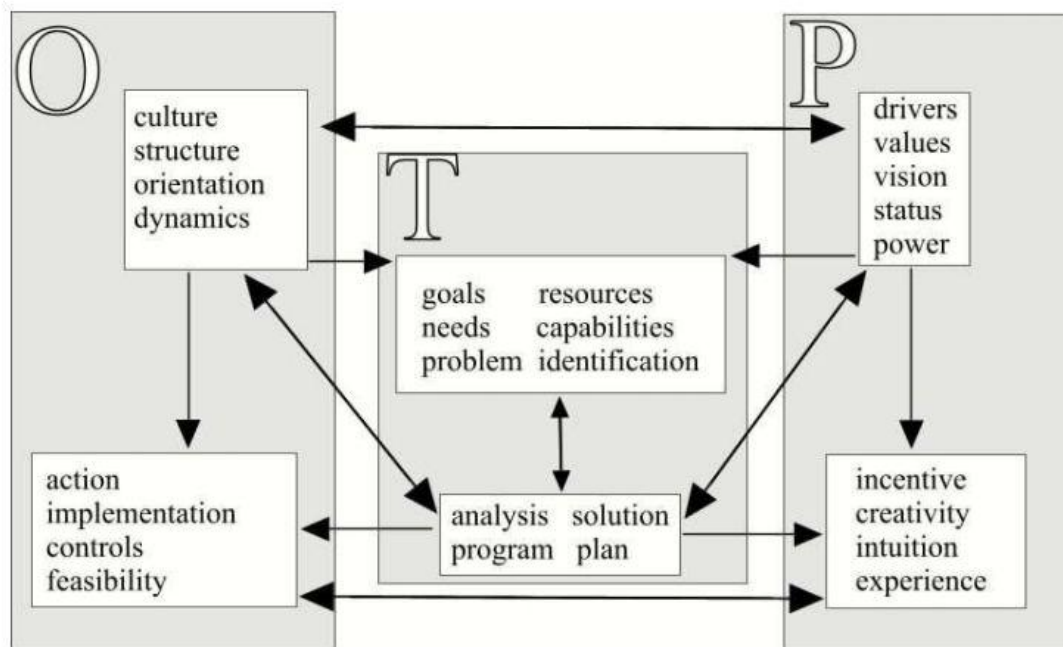


Figure 2: TOP interactions

Each perspective has focus on different criterion and raise diverse requirements to the manager. The analysis will start from these three perspectives by analyzing the criteria one by one and then move to the extended perspectives.

5.1 Technical

Science and technology represent the most successful “religion” of modern times. They form the paradigm for the technical perspective. From Galileo to Apollo manned lunar landing, from Darwin to recombinant DNA, its methods has yielded fantastic findings and inventions. Researcher Linstone (1993) summarized the following characteristics of the technical world view:

- Problems are simplified by abstraction, idealization, and isolation from the real world around us. There is the implicit assumption that the processes of reduction and simplification permit “solution” of problems.
- Data and models comprise the basic building blocks of inquiry. Logic and rationality as well as objectivity are likewise presupposed. Order, structure, and quantification are sought wherever possible. Observation and model building, experimentation and analysis are usually aimed at improving predictive capability. Validation of hypotheses and replicability of observations and experiments are expected. The attainment of elegant models and best or optimal solutions is particularly prized.

Therefore, the problems that are resulted from the technical perspective are most likely to happen in the planning stage. It is because this is where goals, resources, capabilities, and problem identification are analyzed in the company. Let’s look at these aspects one by one in relation to Shijiazhuang Tractor Plant.

5.1.1 Goals

We need to look at the goals of the company in two stages. The goal of the company was made by the state. These are usually abstract ambitions that are made in the ideal market without competition. The planning horizon is usually far. This is especially the case when it comes to Shijiazhuang Tractor Plant (STP) when it was founded. It was still command economy in China at that time. The goal was to meet the Chinese farmers’ demand in the agricultural vehicle market. However, there

were at least 4 other big factories that also make tractors that shared the same goal in different parts of China. None of these factories had a specific plan of how to meet this goal. There was no positioning or differentiation of the products at all. Each factory just took order from the state and managed to complete it. It worked for a few years, but soon stopped working, that is when STP had its first financial difficult time in 1992.

The second stage started when the SOE-reform was being carried out in the late 1990s. During the reform, the goal of all the SOEs was setting up a brand new enterprise system in order to comply with the market economy in China. This goal is another abstract ambition made by the government that has nothing to do with the production of the company. It might give the directors of the company some guidelines of where the enterprise is going, but it means nothing for the employees. When such a goal is settled, the employees have no idea what they can do to meet the goal. It gives them confusion and uncertainty which can result low productivity at work.

5.1.2 Resources

There are mainly three types of resources in a company: capital, technology and people. In STP, the capital was of course state-owned. It has a great advantage because the state could offer sufficient financial support, and there are some favorable treatments from the state-owned commercial banks towards SOEs. This includes access to borrowed funds at favorable interest rates, debt forgiveness to SOEs unable to pay their loans, and loans to non-creditworthy enterprises. The government has utilized these state-owned commercial banks as a main source of capital to fund investment projects and support SOEs, which in turn provided employment and government revenue. The former director of STP commented like this: “without the huge financial support from the state, the company would have gone to bankruptcy 10 years ago (in 2000).”

When it comes to technology, there was no technology core in this plant. The drawing and design data of building a tractor were “borrowed” from the former Soviet Union. These designs were used for more than 20 years until the market was saturated. When STP began to reposition itself and started to produce medical

equipment with other private sectors in 2004, it also experienced the same difficulties. Poor technology and innovation are therefore a direct cause to the economic fail in the end.

People are another important resource of any company, probably the most important one. In the five functions of management, recruiting is usually a problem that managers will encounter in the process of organizing. Under the command economy, the government at different levels conducted human resource planning and then allocated labour to enterprises. STP itself therefore had not handled this function before the SOE reform. When the plant was founded, it had a list of quotas for its employees specified by the Municipal Labour Bureau. People with different academic degrees fill different positions. That is to say, technical school graduates and those with lower education level can only be workers. The total number of workers was under the state's control because the total wage bill had been fixed by the Municipal Labour Bureau. New employees were usually recruited via two routes. The first was allocation by government authorities such as the Municipal Personnel and Labour Bureau. The second was "occupational inheritance" by close relatives of those who had retired. In the early years, demobilized soldiers, high school leavers and graduates were assigned to the plant by government authorities. Later, a group of sons and daughters of retired employees was recruited to inherit the jobs of their parents; usually they would be assigned by the plant according to production needs rather than taking on the same position as their parents. Such way of human resource planning and recruiting lasted for many years until the late 1990s. As a result, not all employees, even the managers are qualified to do their jobs which make up for another reason of the low productivity in the company.

5.1.3 Capabilities

A capability is the capacity for a set of resources to perform a stretch task or an activity. Through continued use, capabilities become stronger and more difficult for competitors to understand and imitate. As a source of competitive advantage, a capability should be neither so simple that it is highly imitable, nor so complex that it defies internal steering and control.

For STP, compact 4-wheel tractor was the product that the plant had a leading position in the market. There are two reasons of why this type of tractor was popular at that time: first, the quality of the tractor made by STP was excellent. Second, this type of tractor was in high demand during 1994-1998. The chart below shows the production of compact 4-wheel tractor by STP from 1990 to 2000.

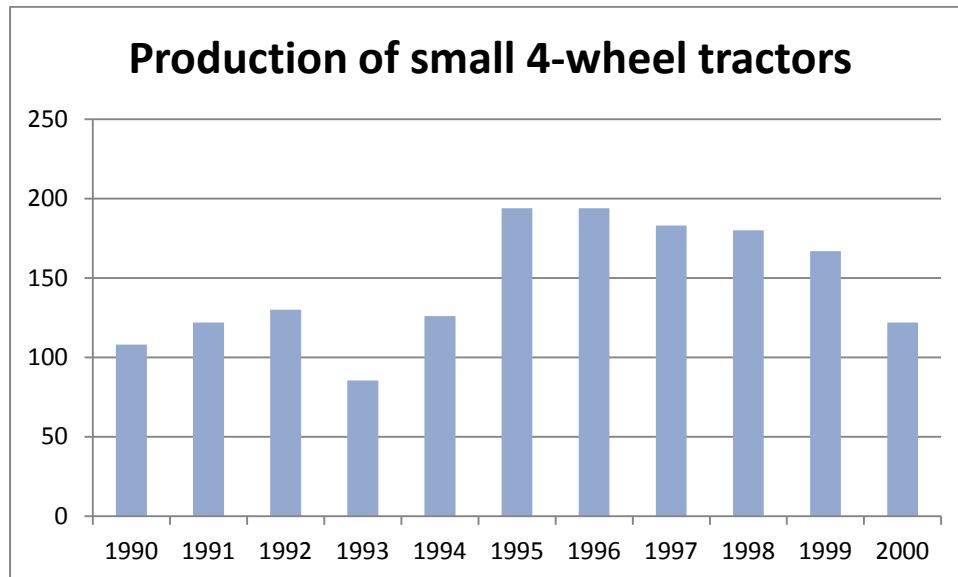


Figure 3: Production of STP from 1990-2000

However, since this type of tractor was popular at that time, many competitors of STP which mainly produce big 4-wheel tractors began to go in this market as well. A price war was the result of this competition. In China, the consumers are always price-sensitive, especially in the agricultural vehicle market where farmers are one of the low income groups. Therefore, STP lost its competitive advantage in the price war and had to shrink its production due to oversupply.

If an enterprise wants to survive in a fast changing environment, the ability to observe its problem and change strategy has a crucial effect to the enterprise. However, STP didn't have other products that were profitable in the market. The destiny of the whole plant relies on the sales of compact 4-wheel tractors. This is also why the plant collapsed when the market for compact 4-wheel tractors shrunk.

5.1.4 Problem identification

Problem identification is another job that the management should do already in the planning stage. The two main tasks here are: to predict problems the company would encounter in the near future; and to identify the current problems the company is facing. This requires scientific method to make it work. First they need to find out what is expected and what is occurring. The lap between these two situations is where the problem lies. A proper problem identification method will help solve the correct problem, reduce operating cost, improve quality and maximize change over time.

The Root Cause Analysis Cycle introduced by Kepner and Fourie (1997) is a method for identifying problem causes in any organization. It works in the following way:

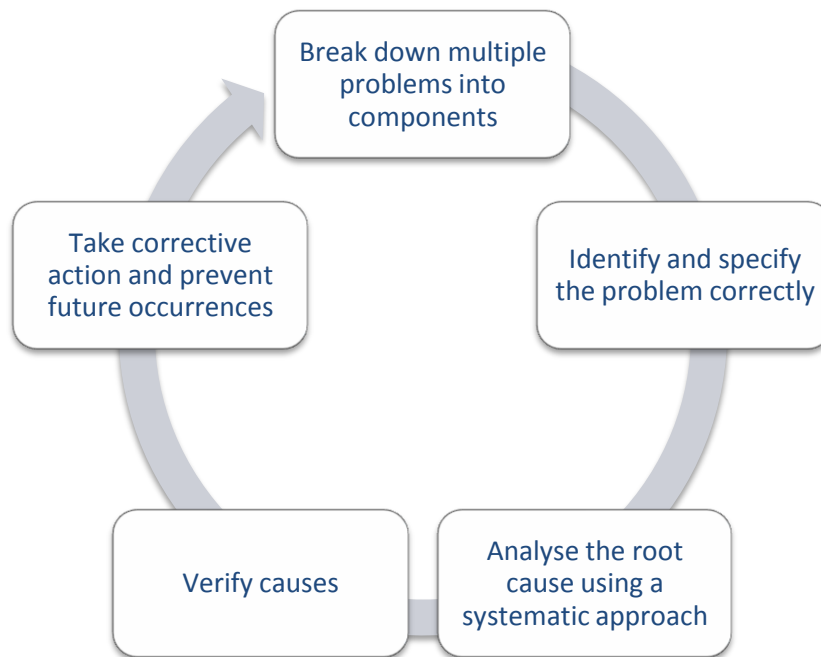


Figure 4: Root Cause Analysis Cycle

This method requires the management to have a very disciplined and rigid process of isolating problems, then breaking it down quickly into a single-minded problem solving approach. In STP, it was not before the transition to corporation that the company started to have a board where they make plans and decisions. Before that time, the director of the plant did not have the function of identify and solve problems. He just executed what he was told to do from the municipal authorities. So he did not have the time or the resources to identify the root causes when a

problem occurs. Waiting for the orders from the government was always the “best” solution. After the board was founded, they were already too many problems inside the company. They had the ability to go over from step 1 to step 4 but hardly come to step 5. This is because in a SOE like STP, most decisions are still made by the state. Once they want to have any change of the company, they need to report to the state and apply for approval. This usually takes a lot of time. In the meantime, it lost and wasted big amount of human resources and operation cost. This dragged the company into an even more difficult time.

To sum it up, STP had following problems in the planning stage analyzed from the technical perspective:

- The company had vague goals that could not encourage its employees.
- The company had a great advantage in financial resources, but mediocre human and technology resources.
- The competitive advantage of the company lasted too short; the single product line makes it difficult to develop sustainable competitive advantage.
- The ability to diagnose and solve problems is paralyzed due to the stiff organization form and subjection to the state.

5.2 Organizational

Human beings are supreme social animals. Since their existence, they have organized themselves into different groups and organizations. Shijiazhuang Tractor Plant is a special organization because of its ownership. The state plays an important role in the decision making process inside this organization. The organizational perspective focuses on process rather than product, on action rather than problems-solving. Managers should look from the organizational lens especially when it is concerning organizing and commanding in the organization. How to select right people and how to inspire them to achieve company goals are crucial to the organization. The organizational perspective also highlights the role of a decision maker's organizational context in this respect by paying attention to an organization's structure, culture and degree of institutionalization. In this section, there will be some discussion about these factors and the relationship between the state and the plant, in an organizational point of view.

5.2.1 Structure

Organizational structure refers to the way that an organization arranges people and jobs so that its work can be performed and its goals can be met. In a large organization, decisions have to be made about the delegation of various tasks. Thus, procedures are established that assign responsibilities for various functions. State-owned enterprises in China are wholly or mainly owned by the central, provincial or city governments. SOEs used to be the most important part of the economy, accounting for 90% of the output in 1980 and employing the majority of urban work force. At that time, SOEs were directly controlled and managed by the government. In particular, both labor and raw materials used in production are set by the government. Managers of SOEs had no role in deciding what to produce or what prices their products should be sold at. Shijiazhuang Tractor Plant was born at this time of the history.

The structure of an organization expresses whether coordination is hierarchical or collegial. "Collegiality" usually means that decisions have to be reached through arguing, bargaining or voting rather than through command. Most government-owned organizations are basically hierarchical in their organizational set-up, so was

STP. Before 1987, the factory director was appointed by the Chinese Communist Party Committee. It was known as the system of directors assuming responsibilities under the leadership of the Party committees. Party committee sits on the top of the management. The director might have no background knowledge of the factory and products at all, and might come from different parts of China. His responsibility was to accept assignment from the Party committee and achieve it. What and how much to produce was decided by the state (Party).

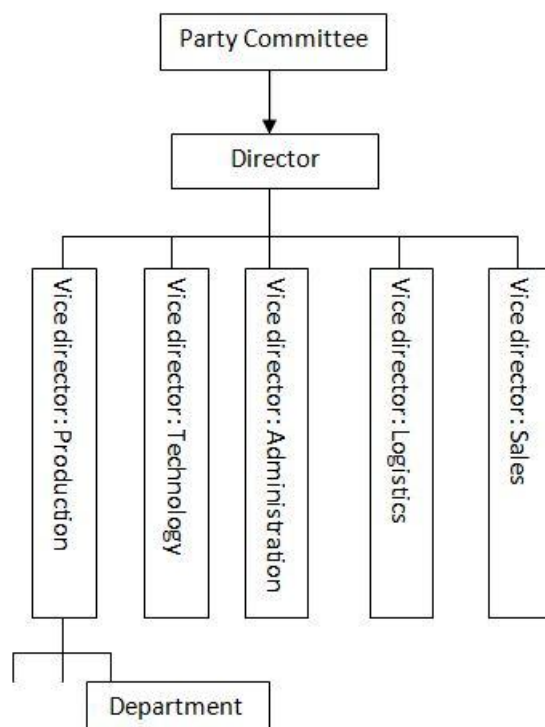


Figure 5

During the 1980s there was a big systematic reform of China's SOE which granted the enterprises more autonomy. Managers were also granted with more financial incentives. In January 1987, the government started promoting "contract responsibility system". Under this system, managers were allowed to share part of the profits that was above what was set in their contract with the government. This measure gave SOE managers more financial incentives and consequently SOE performance improved. The Party committee no longer sat on the top of the management, but on the same level of the factory director (manager) to assist the

director. The director was still appointed by the city government, not from other places but from within the plant.

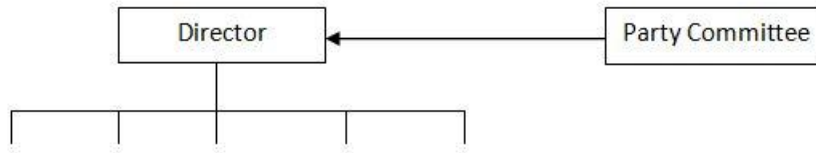


Figure 6

In 1997, STP acquired four other plants and founded Group Co., Ltd. This was an act resulted from the SOE reform. At the same time, all these plants were transformed to corporate system. On the organization level, the factory director became manager after the reform. The manager is selected by both Party committee and the president, and is the executive officer. He is no longer the corporate representative but the president is. The president is appointed by the Party committee. He is mainly in charge of long term planning and investment planning. After the reform, the company was expected to have the ability to compete freely with private enterprises and foreign-owned enterprises. The government wanted to share the responsibility to more agents so that there would be a more robust operation than before.

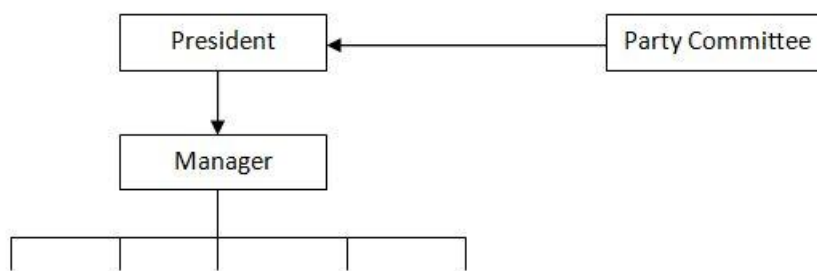


Figure 7

This new set-up indicates the progress of organizational structure in SOEs in China. It also shows more and more openness and democracy in the organization. Especially after the SOE reform, the company gradually became collegial from hierarchical. Most decisions are made inside the organization without the interference from the Party. However, people who operated in STP were still the same, and the way they

work did not change that much. There are some psychological explanations for this which will be discussed in the next section.

5.2.2 Organizational Culture

Organizational culture is considered by Schein (2004) to be the climate and practices that organizations develop around their handling of people, or to the promoted values and statement of beliefs of an organization. It gives organizations a sense of identity and determines, through the organization’s legends, rituals, beliefs, meanings, values, norms and language, the way how things are done around here. Schein also emphasizes that the most intriguing aspect of culture as a concept is that “it points us to phenomena that are below the surface, that are powerful in their impact but invisible and to a considerable degree unconscious.”

It is important to note that there is not just one organizational culture. Different organizations have distinctive cultures. Also, there may be more than one culture within organizations. One classification of culture types is proposed by Bradley and Parker (2006), based on work by Quinn and Rohrbaugh (1983).

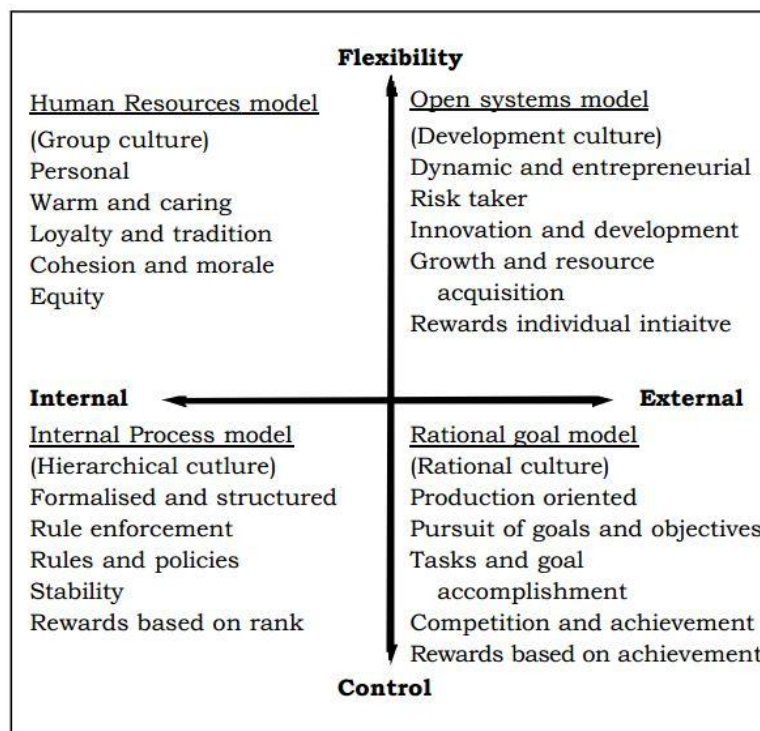


Figure 8: Source: Bradley and Parker (2006)

This model illustrates the competing demands within organizations between their internal and external environments on the one hand and between control and flexibility on the other. Organizations with an internal focus emphasize integration, information management and communication, whereas organizations with an external focus emphasize growth, resource acquisition and interaction with the external environment.

The organizational culture of STP lies very much to the control side, but somewhere in between internal and external environment on the horizontal axis. Both structure and culture are hierarchical in STP, but it is also production oriented. Managers organize employees in the pursuit of designated goals and objectives, and rewards are linked to outcomes. This is recognized by the objectives made by the managers in the plant. It is very typical that the objectives they have there are all about numbers, but not quality. In the “second start-up” period, the director called for all the employees to work without holidays for 100 days in order to meet the desired production. At that time, the plant was in a difficult period in its history. However, the director managed to encourage its 6000 employees to work overtime without any reward to come through this difficulty together. It really worked for that time, they met the desired production in advance and the plant was temporarily out of the financial crisis. But when looking back, what worked for them were not the objectives by number, but the motivation and encouragement from the director to take the plant as a big family. This warm and personal encouragement is exactly what STP and maybe all SOEs are missing. However, this special culture in STP was quickly gone as after the second start-up, the plant transitioned to corporate, and acquired other plants. It was difficult to make the organizational culture consistent with all the other plants which have not come through the same as STP have. Therefore, the enthusiasm was gone either for the new group, or STP.

5.2.3 Institutionalization

In a corporate context, individuals who work within large established organizations can become socialized into organizational values and norms, and values and norms may become institutionalized. Iyigun and Rodrik (2004) suggest that such supportive structure and routines may in some cases lead to narrowing or reduction in

individual critical judgment and reasoning. This is a typical problem where it roots in all SOEs in China, including STP.

There are two big institutional changes in the evolution of Chinese SOEs. The Contract Responsibility System in the 1980s was carried out in order to make SOEs more viable and energetic. Firms were allowed to produce more than the plan quota, and sell the extra to the market. Part of the profit resulted from the extra products were kept by the firms. This strategy proved to be successful in increasing the productivity and efficiency of the enterprise. However, the managers in negotiating their contracts with the state agencies always tried to hide the real base figures of production, revenue, and profits, in order to gain benefits. Together with other efforts the firms took in order to gain benefits for themselves, the result was the drain of state asset. The firm increased its productivity and efficiency but also came into debts.

Later on, a new reform plan known as corporatization was put into practice by mid 90s. The aim was to reorganize SOEs into “modern enterprises” with clarified property right and responsibilities (Wang, 2004). However, it also resulted in several major political economy problems. The first is corruption of firm managers and state officials who have rights over the firms they govern. Managers became rich while the firms went into debt. State officials also request funds from the firms, either for their own benefits or for their governmental agenda. And the second problem is that firms became increasingly in debt to the banks. The banks are controlled by the government. In order to keep the firms running, the government often orders the banks to give loan to the firms, even though the firms are unable to pay back even the interest of the loans. As a result, firms became in debt with each other, a phenomenon known in China as “Triangle Debts”. These problems concerned not only with STP, but all the SOEs in China. It was a direct result from the stiffness of institutionalization and the bureaucratic structure.

In summary, the STP had the following problems identified from the organizational perspective:

- The overwhelming dominance of state ownership in SOEs.

- The hierarchical structure can result in mindless and unquestioning bureaucracy; make the company slow to adapting changes.
- It doesn't have a consistent organizational culture to stand out from the crowd and compete with each other.
- Institutionalization stiffens the management and results "cheating" problems.

5.3 Personal

The personal perspective views the world through a unique individual. It sweeps in aspects that relate individuals to the system and are not captured by technical and organizational perspectives. The individual can make a crucial difference. An effective leader can impose his perspective on that of his followers and organization, changing a corporation or a society. But this also works in the other way. Study from this perspective can make great efforts to manager's responsibility in organizing and coordinating in a company. The personal perspective examines the individuals in the company by motivation, values, vision and power.

5.3.1 Motivation and Value

Motivation is the force that makes us do things: this is a result of our individual needs being satisfied so that we have inspiration to complete the task. These needs vary from person to person as everybody has their individual needs to motivate themselves. Depending on how motivated we are, it may further determine the effort we put into our work and therefore increase the standard of the output. Values play a defining role in motivation. An organization that has identified the values of how employees want to live is a workplace with motivation potential. Values such as integrity, empowerment, equality, discipline and accountability are powerful motivators when they are truly integrated in the culture of the organization.

In STP and all SOEs in China there is a phenomenon called "equalitarianism". It is regarded in China's cultural tradition as an important value. In the planned economy, equalitarianism had an important influence on the distribution system. The Chinese government established a uniform national wage system. Every employee received his wage according to one uniform system and his salary was not affected by the performance of his enterprise. In the process of the transition to a market economy, the central government recognized that the culture with the neglect of economic interests of individuals was one of major factors to cause a low efficiency. The enterprise was later named the "iron rice-bowl" which means the enterprise had a 100% marginal tax rate; every enterprise had to hand over all its profit to the government and then government redistributed all profits evenly among all members in the society. The income level of the employees in a poorly performing

enterprise would not be decreased, because enterprises would get the allowance from the government. Workers were effectively guaranteed the right to keep their jobs for their entire careers regardless their performance. Workers who were thought to have a high level of “political consciousness” would be promoted to be managers. Their salaries were also fixed by the general wage system and not much higher than those of skilled workers. Over time it became clear that attempts to motivate workers through ideology and politics were less and less effective as material incentives were more and more valued. The lack of labour discipline and motivation gave rise to widespread job shirking, low morale, and high absenteeism in the workplace (Lockett, 1992). So both managers and workers did not care about the performance of their enterprise and nobody was willing to work hard to produce high quality products. This system directly led to a decrease of productivity and to national poverty.

5.3.2 Machine-like Organization

In addition, Morgan’s metaphor of organizations as machines also described how organizations like STP routinize the management and how power is centralized. Mechanism in organization theory was first introduced by sociologist Max Weber (1946). He observed the parallels between the mechanization of industry and the proliferation of bureaucratic forms of organization. He noted that the bureaucratic form routinizes the process of administration exactly as the machine routinizes production. He found that the bureaucratic approach had the potential to routinize and mechanize almost every aspect of human life, erasing the human spirit and capacity for spontaneous action.

Another major contribution was made by a group of management theorists and practitioners who set the basis for what is now known as “classical management theory” and “scientific management.” Classical management theorists focused on the design of the total organization, whereas the scientific managers focused on the design and management of individual jobs. The design of Chinese state-owned enterprises is very much alike with the classical management theory where a pattern of precisely defined jobs organized in a hierarchical manner through precisely

defined lines of command or communication. Here are some principles of classical management theory:

- Unity of command:** an employee should receive orders from only one superior.
- Scalar chain:** the line of authority from superior to subordinate, which runs from top to bottom of the organization; this chain, which results from the unity-of-command principle, should be used as a channel for communication and decision making.
- Span of control:** the number of people reporting to one superior must not be so large that it creates problems of communication and coordination.
- Staff and line:** staff personnel can provide valuable advisory services, but must be careful not to violate line authority.
- Initiative:** to be encouraged at all levels of the organization.
- Division of work:** management should aim to achieve a degree of specialization designed to achieve the goal of the organization in an efficient manner.
- Authority and responsibility:** attention should be paid to the right to give orders and to exact obedience; an appropriate balance between authority and responsibility should be achieved. It is meaningless to make someone responsible for work if they are not given appropriate authority to execute that responsibility.
- Centralization:** always present in some degree, this must vary to optimize the use of faculties of personnel.
- Discipline:** obedience, application, energy, behavior, and outward marks of respect in accordance with agreed rules and customs.
- Subordination of individual interest to general interest:** through firmness, example, fair agreements, and constant supervision.
- Equity:** based in kindness and justice, to encourage personnel in their duties; and fair remuneration, which encourages morale yet does not lead to overpayment.
- Stability of tenure of personnel:** to facilitate the development of abilities.
- Esprit de corps:** to facilitate harmony as a basis of strength.

Exhibit 1: Principles of classical management theory (Gareth Morgan, 2007)

In STP, the director was the top authority of the plant. He was supposed to be in charge of all the planning and decision-makings in the plant. While in SOEs in China, the director is assigned by the government, or the party committee. He is not only

the director of the plant, but also a member of the Party. This relationship makes him an intermediate person between the government/Party and the plant. The power of all SOEs like this is centralized at the Party. That is the case for all SOEs before 1987. In other words, the plant and its competitors, suppliers are all “machines” that work for the government/Party. They take orders from the government and execute in different areas. Everybody including the director is employee. They just work in the different levels of the power pyramid. They get paid according to their levels, not by how much value they create.

5.3.3 Vision

Vision is another thing that people who work in STP lack of. This is because of the human resource selecting system in China, especially in SOEs. As stated in the previous chapters, the director of the plant was appointed by the party. Many people were distributed to work in this plant when they were graduated from school, not by their own choice. Those who applied to work for the plant are mostly because this plant is a SOE, in other words, the job is an “iron rice-bowl”. They did not need to worry the rest of their lives by working in a company like this. The idealized equalitarianism makes people work as machines. By working like machines, they lost their passion and ambition for their job.

In summary, STP has the following problems diagnosed from the personal perspective:

- Both director and employees are badly motivated in the long run, making their jobs as something they have to do, not something they want to do.
- Employees are likely to shirk when they are aware of they will get the same with other people anyway, thus lead to low efficiency.
- Power is extremely centralized; this makes the director hardly make any change for the interests of his own company.
- The lack of vision makes the people even less motivated in their jobs.

5.4 Environmental

The previous perspectives focus on the company itself. However, a company is not independent in the market. The bigger the company is, the more it involves with other partners or competitors in the business environment. Therefore, it is required to look at the company from a higher level and identify its potential opportunities and threats. The ancient Chinese military general, strategist and philosopher Sun Tzu once said "One who knows his own strength and that of the enemy is invincible in battle". Managers should take careful consideration of competition situation and the business environment around the company. Business environment analysis is a systematic process that starts from identification of environmental factors, assessing their nature and impact, auditing them to find their impact to the business, and making various profiles for positioning. A business manager should be able to analyze the environment to grasp opportunities or face the threats. This is his tasks in planning and controlling of the organization. The organization needs to build strength and repair their weakness available in the business environment. So this process consist not only a single step but a process of various steps including scanning, analyzing, monitoring, and forecasting. The metaphor, organizations as organisms by Morgan, goes through the first two steps of the environment analysis.

5.4.1 Organizations as organisms

This metaphor, which is popularly mentioned and applied to describe survivable organizations, let us see organizations as the living units. It emphasized the importance of managing concerned to organization's needs and the relationship between organization and its environment. The "population ecology" view brings Darwin's theory of evolution into the organizational analysis and suggests that organizations, like organisms in nature, depend for survival on their ability to acquire an adequate supply of the resources necessary to sustain existence. They have to face competition from other organizations, and since there is usually a resource scarcity, only the fittest survive. This metaphor helps us develop effective study on organizational environment and comprehend the life cycle of organization that how organizations are born, developed and declined, and how they adapt themselves to the changing environment.

In order to recognize the importance of environment, the “open system approach” was raised during 1950s to 1960s. The theory was built on the principle that organizations, like organisms, are “open” to their environment and must achieve an appropriate relation with that environment if they are to survive. From this point of view, much attention should be paid to understanding the “business environment”, defined by the organization’s direct interactions with customers, competitors, suppliers, labor unions, and government agencies. For example the tractors made by Shijiazhuang Tractor Plant had good reputations among the customers in the early years. The plant was once in a leading position in the industry. The employees were greatly motivated during the “second start-up” period. All these positive relationships with the business environment helped the plant to make its peak during 1995-1997. But after the acquisition of other machinery works, the huge debt made the company difficult to ask for loans from banks. The suppliers couldn’t deliver enough supply because of the debt. The employees couldn’t get paid. And they lost a great amount of customers because of the high price of their products. The company finally died in the harsh environment due to the lack of both financial and human resources.

The contingency theory is a class of behavioral theory that claims that there is no best way to organize a corporation, to lead a company, or to make decisions (Morgan, 2007). Instead, the optimal course of action is contingent upon the internal and external situation. Research around this theory was led by Paul Lawrence and Jay Lorsch from Harvard. It was built around two principal ideas: 1) that different kinds of organizations are needed to deal with different market and technological conditions and 2) that organizations operating in uncertain and turbulent environments need to achieve a higher degree of internal differentiation than those in environments that are less complex and more stable. During the “planned economy” time in China, the market was relatively closed. There was almost no competition. How much they should produce and how much they earn was all fixed. Therefore it contributed a certain and stable environment where everything worked just fine. When China was in the period of transiting from planned economy to market economy, there was a big change in the environment. Competition became

fiercer, the employees realized that how much they do is how much they earn, and some of them went to other private companies with better conditions and better pay, some of them started their own business. The ones that didn't left are usually people that are less skillful and used to the old "everyone is equal" mode. So there was a big loss in the human resources. But in such turbulent environment, the plant became too big so that it was too slow to react. The value chain generated by the plant was quickly destroyed during the market change. The old products were no longer popular and profitable in the market and the new products couldn't afford the cost of huge number of employees. So the plant quickly withered.

The contingency theory also presents a scheme of questioning which can be used to identify organizational characteristics and to determine the compatibility between elements. By this idea, the organization is consists of interrelated subsystems of a strategic, human, technological, structural, and managerial nature, which need to be internally consistent and adapted to environmental conditions. The characteristics of Shijiazhuang Tractor Plant can be plotted as shown:

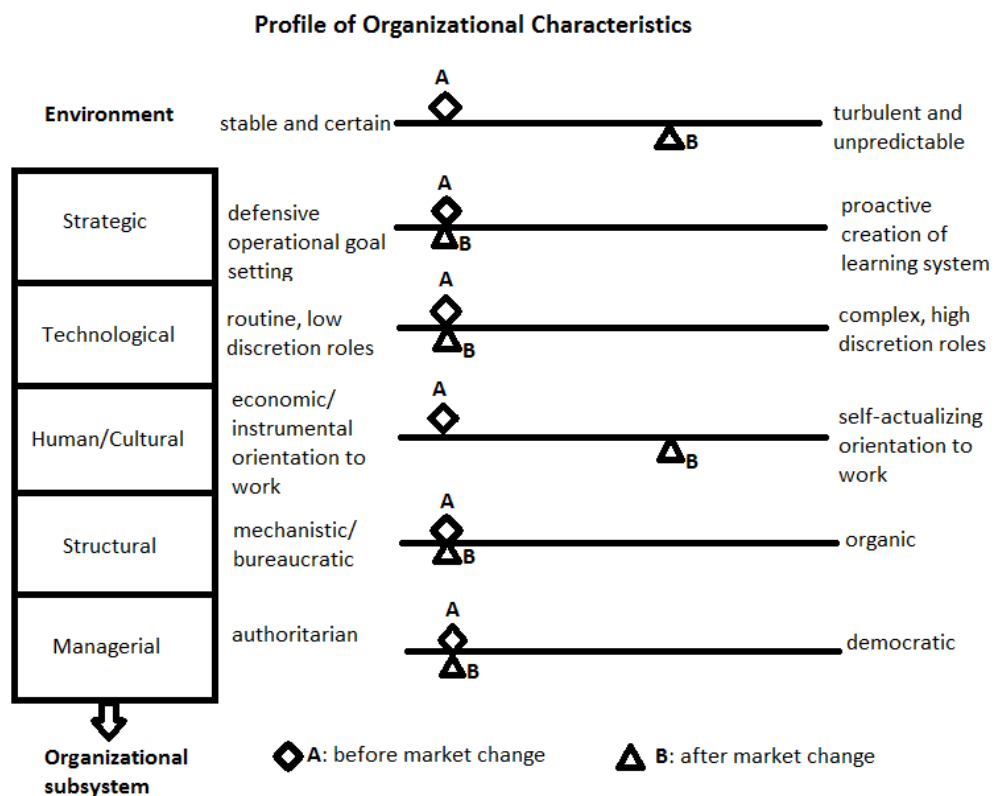


Exhibit 2: Profile of organizational characteristics

Position A represents the Shijiazhuang Tractor Plant before the market change. It was living in a secure market on the basis of a good-quality product produced in a cost-efficient way. The plant was structured and managed mechanistically. The people were content of their narrowly defined roles. Position B represents the plant experiencing the market change where there was a higher demand of product and technology differentiation. The market was more turbulent and unpredictable. Employees had a higher expectation on self-actualizing work. The manager got to do something to balance the change in order to keep the plant alive.

5.4.2 Monitoring

After the plant was scanned and analyzed, monitoring the environmental factors is another task that the manager should do. The environmental factors here refer to the external factors that affect the organization. In this section, the two most important external factors, the government and competitor will be discussed.

The government often plays an important role in the economic activities, especially in China where there is only one party to decide, and their first task for the last 30 years was to aid economic development in China. The economic policies from the Chinese government are therefore extremely important to the state-owned enterprises, because all the SOEs were founded between 1950s and 1970s where China was still in planned economy. The state is actually the top management of all SOEs, not the director or manager in the enterprise. As a result, the life cycle of a SOE is closely correlated with the state's directions.

The most important turning point for STP must be the SOE-reform that took place in 1996-2008. This was a period where market had gradually taken the lead in the economy. Private sector's share of the GDP rose from less than 1% in 1978 to 70% by 2005, and the figure is still increasing. This was also a decisive period for all SOEs. Due to the poor performance of the SOEs in the market economy, the government embarked on a massive restructuring program of corporatization. It's also known as the "SOE reform". Under this scheme, the state retains ownership and control of large enterprises but the central government has little direct control over the operations of SOEs. This was how the changes began.

During the 15th National Communist Party Congress that met in September 1997, General Secretary, President Jiang Zemin announced plans to sell, merge, or close the vast majority of SOEs in his call for increased “non-public ownership”. The main purpose of the reform was to make SOEs more profitable, more competent and more adjustable to the market, set up a modern enterprise management system. This was exactly the time when Shijiazhuang Tractor Plant was on its top. The plant was forced to acquire 4 other SOEs that were struggling for survival. All these plants were then transformed to companies and founded Tiantong Group Co., Ltd. The government was hoping the tractor company could use its successful experience to aid the other companies, and share both human resources and assets. This was also around the same time when its competitors like Weituo Group and Tianjin Tractor Corporation were sold to the foreign companies. But unlike these two deals, Tiantong Group not only didn’t solve its own problems but the alliance also made new problems and financial burdens to the Tractor Corporation which quickly led the company to bankruptcy.

5.4.3 Forecasting

Forecasting is about finding the future possibilities based on the past results and present scenario. For STP, there are two things that the manager should forecast on, namely the market development and the government’s policy direction.

In the new technology era, to forecast and apply new technology is decisive for an enterprise to take initiative in the competition. Forecasting of the market development is a responsibility of the research and development department. However, as this paper mentioned before, STP is really weak at this. The plant hardly had a R&D department. All drawings and designs of tractors were old and not even owned by the plant. Their technology department was more like an after service department which focused mostly on maintenance rather than innovation. In the early years, this was not a problem since there was constantly demand in the market and the government made decisions about what and how much to produce instead of the plant itself. But as the SOE-reform began to carry out, the plant had more autonomy in making decisions. But the market for compact 4-wheel tractor was gradually saturated and the plant was still missing the R&D department to search for

new areas to make profit in. This is another reason that the plant was reacting slow to the rapid market change.

Predicting the government's policy is also crucially important for all SOEs including STP. China's agricultural manufacturing sector faces many problems, and its future development will greatly depend on the economic decisions made by the country's political leaders. The swift and unexpected breakdown of the Soviet Union shows that radical changes in economic policy can come over night. China's political system still functions behind closed doors. This makes any prediction of China's economic development not easy to do. Therefore, a good prediction to the upcoming policies will be of great help of the plant. This is the responsibility of the Party committee in the plant. They have done a relatively good job in predicting that most SOEs in China will be gradually privatized in the near future, and the board could make more and more decisions on itself. But what they did not predict was the merge and alliance movement from the government. It came in a sudden and happened in a hard way that STP was forced to merge with four other plants that were running in deficit. This came as a heavy burden to the new founded group and the inside organizational conflict dragged STP from its peak to the bottom. After this sudden change, since the company never had any merging experience before, it was difficult for them to learn from the past and predict for any future action.

By taking the business environment analysis to the plant, here we have the problems observed from the organism point of view:

- The environment changed around the plant, but the management could hardly change so long it is state owned.
- During the development of the plant, it lost its competitive advantage gradually so that it didn't have a core value to make it survive.
- According to contingency theory, the more organic the organization is, the more quickly it can adapt itself to the environment, but Shijiazhuang Tractor Plant is way too mechanistic, hence it's too slow to adapt to the changing environment.

- The monitoring and forecasting function of the management was relatively poor. The plant was not able to learn from its competitors or make executable future plans.

5.5 Cultural

The cultural perspective that is going to be discussed here is a bit different from the organizational culture that was talked about in 5.2.2. The culture concept in this section refers to the social custom on a national level. Martinsons and Westwood (1997) considered the great influence of the Confucianism to the Chinese business culture in their research. In addition, Laulusa (2008) added the family metaphor of the Chinese organization and its characteristics. In this section, an analysis of the Chinese culture will be given to show how it can influence a company on organizational and personal level. The following concepts will be going through: Confucianism, family-ism, collectivism and “guanxi”.

5.5.1 Confucianism

The long history of Confucianism is one of the most important elements of China’s civilization. It features specific Chinese character and Chinese mindset, such as family-ism and group orientation. This culture has a strong influence on the development of the Chinese economy. As a moral system, Confucianism focuses on the relationship between persons, which is defined by five virtues: Ren (humanness), Yi (righteousness), Li (etiquette), Zhi (knowledge) and Xin (trustworthiness) (Edward, 1998). These five virtues used to be the criteria and principles guiding social behavior. Almost all the concrete moral and legal rules, for individual conduct, are derived from the five virtues. For example, there was no “civil law” or “commercial law” in ancient China, because Li dealt with the relations and behavior in daily life, including family life and all other social communications. The Chinese consider Li to be primary, while the law is secondary.

Another focus is on the hierarchical relationships between ruler and subordinate, father and son, husband and wife, the elder and younger. Society is seen as a hierarchical pyramid of roles. The well established norms tell people how they should act and behave in relation to people in other roles. Social hierarchy and relations of subordination and superiority are considered natural. For thousands of years China has been a society of highly centralized state power. People are told to respect the rulers and should accept the government’s guide. In the economic system, all economic power should be with the central government. If any change is

needed, it was the government that should initiate it. This insight is important for understanding the role of the state in reforming the SOEs in China.

5.5.2 Family-ism

The “family” in China is an important concept. Chinese families, serve as a basic unit of the society, act to provide not only shelter and food but also an environment within which people socialize and play the roles defined by Confucius. (Xing, 1995) The family consciousness has penetrated deeply into the Chinese soul. In the period of the planned economy, the concept of family was transformed into “family-ism”, which pervaded almost every social organization, including business. Employees of STP, for example, were provided with housing, free medical care and education for their children. They had their own school, hospital, even cinema. Their activities and personal lives were closely connected to the plant whose management functioned as the parents of the extended families in many ways. They were also responsible for both business and solving other personal problems of the employees. Hiring, selecting, compensating and other management decisions involve “family-ism”.

The “family-ism” on the good side helped the employees to have a sense of belonging so that they don’t shift jobs so easily. It also encouraged the employees to work overtime without any bonus when the plant was in a hard time. However, it has a domino effect when the plant is in trouble. Organizations like hospital and school which were supposed to be the responsibility of the society had to suffer economically too and therefore weakened the operating quality. All these additional units cost money and energy to run; it brought huge operational costs to the plant and also distracted the plant from doing its own business.

5.5.3 Collectivism

Chinese group orientation is also identified with Confucian doctrines that emphasize ties of kinship and close personal relationships. The individuals exist for the benefit of the group. They are also perceived as part of a network of social relations and find their own identities with reference to others around them and adopt group goals and opinions in exchange for reciprocal care and protection. It is crucial to have an insight in the value of collectivism to understand the process of institutionalization and the way Chinese people think.

In the period of the planned economy, the importance of groups was reflected in the form of family-ism claim for solidarity. The group orientation was expressed by the “danwei” (work unit), where the focus was not only on work-related activities, but also on private non-work areas. Most Chinese people work in one enterprise for their whole lives and considered the enterprise as their home. Workers depended on the enterprises for their permanent employment, free housing, free medical care and other benefits. As a result, the social needs of the people in a workplace tended to be ranked higher than autonomy and the need of self-actualization (Xing, 1995). At that time, to be able to work in a SOE like STP was like having an “iron rice bowl”. People do not need to worry about the rest of their lives. However, such thoughts result low productivity at work and over-employment of labor. As the SOE-reform started, there was great conflict between the new thinking and the old and the transition was not easy. Those SOEs who could quickly adapt the new ideas have a bigger chance to survive while the others were in trouble.

5.5.4 Guanxi

Guanxi is a cultural characteristic that has strong implications for interpersonal and inter-organizational dynamics in Chinese society. It refers to the concept of making a web of connections to secure favors in personal and organizational relations. Guanxi is an important cultural and social element in Chinese society that has significant effects on business operations, survival, and growth. It is crucial for businesses in China, whether foreign or local, to understand and properly utilize guanxi in order to gain an advantage over competitors.

The practice of guanxi stems from Confucianism, which fostered the broad cultural aspects of collectivism manifested in the importance of networks of interpersonal relations. As China continues its economic reform, guanxi utilization has become increasingly pervasive and intensive at the firm level. There are substantial rewards, such as commissions, bonuses, and promotions, for managers’ personal guanxi utilized for organizational purposes to source key inputs and marketing products. The empirical study done by Park and Luo (2001) showed firms with poor technological skills and managerial capabilities are more likely to utilize guanxi networks than those with superior and strong technological skills and managerial

capabilities. The resource-based view posits that sustainable competitive advantage stems from valuable, rare, and inimitable resources that firms develop over time. In a transition economy, superior skills allow firms to have strong bargaining power with the government.

STP was a firm with poor technological skills and managerial capabilities as this paper analyzed in the previous sections. Since the plant could not generate all needed resources internally, they must conduct exchanges with other organizations to obtain resources that are scarce. The plant did try to cooperate with a few organizations when it was about to produce something else than tractors. But the cooperation was not successful. The manager who initiated this cooperation by his interpersonal relations took the benefit himself and left big debt to the plant since it is state-owned. This is also the disadvantage of utilizing guanxi in China that it can easily lead to corruption. On the contrary, Tianjin Tractor Plant is the biggest and nearest competitor of STP, made the right decision to make alliance with John Deere, the biggest tractor making company in the USA, they together became the leading group in the tractor industry in China.

This cultural perspective concluded some of the characteristics from both the organizational and personal perspectives and has great influence to the economic performance. The problems generated from this perspective are:

- There is big ideological conflict between the traditional Confucianism and the western philosophy in doing business which makes it hard for STP to transit.
- The collectivism and family-ism can generate great strength, but it can also limit the workers' abilities.
- The guanxi was not properly utilized by STP; it therefore lost the competitive advantage among its competitors.

5.6 Economic

The last perspective that is going to be presented here is the economic perspective. This perspective is characterized by utilitarianism and wealth-orientation. This is what microeconomics is about, looking the world from a utilitarian point of view, and looking for the most cost efficient solution to the problem. This perspective can be applied in each stage of the manager's responsibilities. This section will focus on these areas: business cycle stage, labor costs, and profit margin analysis.

5.6.1 Business Cycle Stage

The business cycle stages/phases reflect different levels of economic activity and the subsequent circumstance occurring during each respective stage. Every business has its own set of guidelines and processes designed by various factors like demand and supply, consumer confidence, availability of capital, etc. These factors affect the business in such a way that it experiences periodic rise and fall that can be classified into expansion, peak, recession and trough. Each stage has its unique set of characteristics. This economic cycle provides the strategic framework for business activity and investing, and therefore has great importance to employees, employers and investors.

Expansion: In this stage, business is on the uphill. Consumers are likely to be in good spirits after an unsettling contraction or trough. The unemployment rate generally declines as jobs are created. Spending is increased, so the demand for goods and services also increases, causing business output to rise.

Peak: Peak is an extremely high in the business cycle. During the peak phase, business output is at its highest in several years and unemployment is often at its lowest.

Recession/Contraction: After a peak, a recession begins. During this phase, business output begins to fall and the unemployment rate often rises. The demand for many business' products and services also falls.

Trough: A trough is a low point in business activity; it is the polar opposite of a peak and it marks a significant recession. During a recession, consumer spending is

reduced and business sales decline. This decline results in business shutdowns and heavy unemployment.

After collecting output data from both STP and nationwide in history, a figure was drawn to show their business cycles in the tractor industry in China:

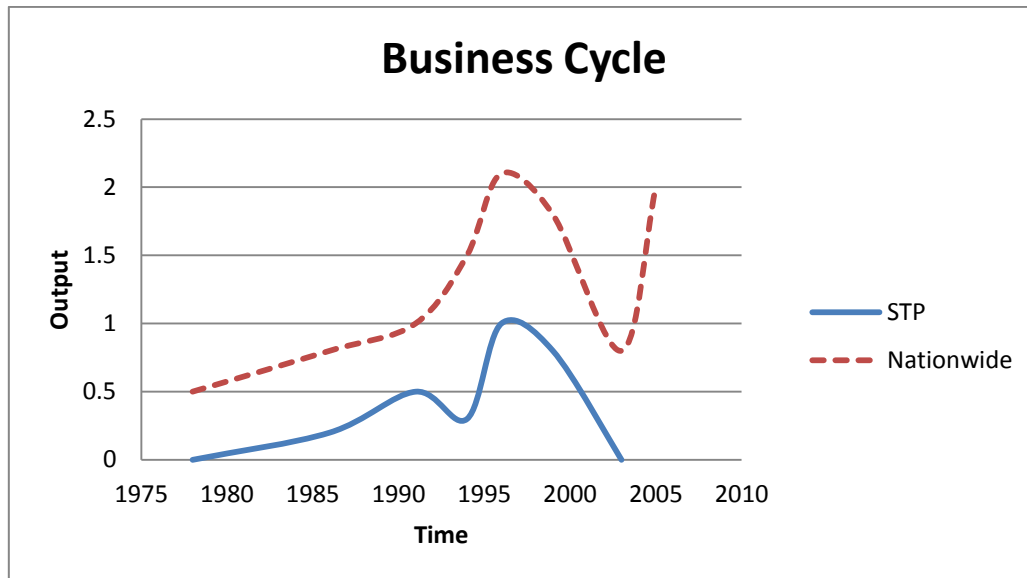


Figure 9: Business cycle STP vs. nationwide

From this figure, we can observe that from 1978 to 1994, China had a long period of expansion. The national market was in the transition from planned economy to market economy. The growth rate was very slow. This is because the manufacturers have a bad ability to adapt to the market and low technology level. There were many producers but few key enterprises. While after years of market accumulation, the industry got its peak in 1996 and the nationwide production of tractors are over 2 millions. Afterwards, the industry went into recession for about 7 years and got its trough around 2003. The yearly production in 2002 were only 852 900. This was also the period where SOEs became gradually privatized and acquired of bigger enterprises. 2004 is a milestone of the tractor manufacturing development. The government carried out a subsidy policy which Chinese farmers would get a subsidy of purchasing tractors. This new policy stimulated the whole industry to get into an expansion stage again.

For STP, it is somewhat another story. The plant followed the national trend until 1992 where the plant got trouble for the first time due to the weak performance and lack of marketing. The following years it was in expansion again together with the national industry. From 1996 to 1999, STP got its peak and was in leading place of the whole industry for 3 successive years. However, the acquisition plan and the turbulent market environment dragged the company into a huge recession and at last ceased all production in 2002. The company could have a big chance to make a comeback again if it could stay longer. But the big debt and already lost human resources made it impossible to do anything than shutting down.

5.6.2 Labor cost

Managing labor cost is one of the most difficult aspects of running a business. For a SOE like STP, balancing between the number of employees and sales is even more difficult since the enterprise does not really have full autonomy to such decisions. One of the most useful and frequently used methods is payroll rate which the labor cost to gross revenues.

Payroll is the total amount a business pays out for labor, including bonuses, benefits and owner draws. Calculating gross revenue to payroll percentage is relatively straightforward. We can divide the gross revenues by the total payroll and convert to a percentage. The table below shows the numbers of average yearly wage for an employee, the amount of total labor, yearly revenue, and the calculation of payroll ratio of STP from 1975 to 2003:

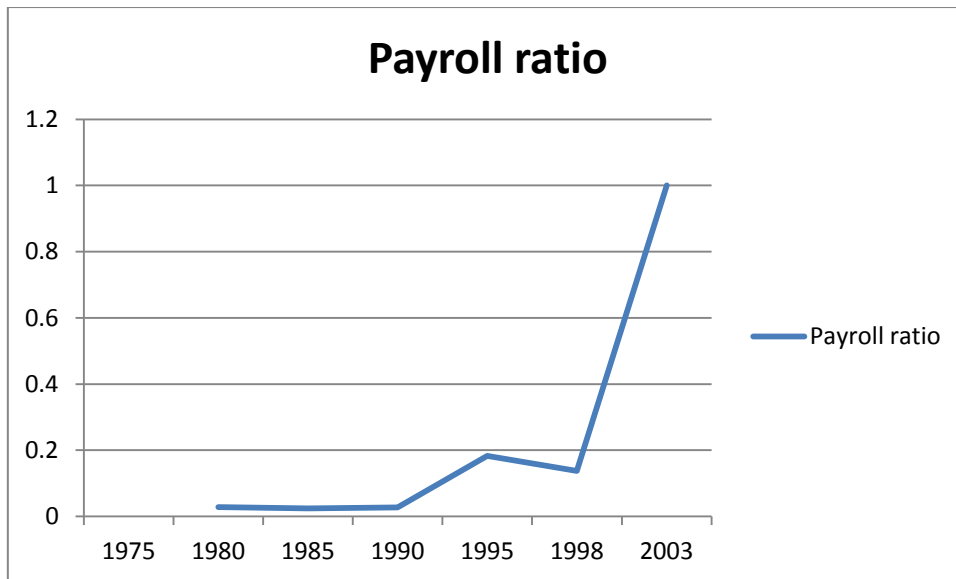


Figure 10: Payroll ratio 1975-2003

Year	Wage(yuan)	Labor	Labor cost	Revenue	Payroll ratio
1975	576	900	518400	0	
1980	720	1200	864000	30400000	2.84%
1985	960	2000	1920000	80000000	2.40%
1990	1920	3700	7104000	260000000	2.73%
1995	6000	5500	33000000	180000000	18.33%
1998	9600	6700	64320000	468000000	13.74%
2003	9600	2400	23040000	0	100.00%

Table 3: Payroll ratio 1975-2003

The labor cost was extremely low when the plant was founded. From the startup of the plant to 1990, it has kept a payroll ratio at around 2.5% which is a healthy number in the manufacturing industry. The average yearly wage doubled by 1990 of the figure in 1985 and then tripled by 1995. The figure came to its peak at 9600 Yuan/year at 1998 when the plant had its best performance and stayed there from then on. The number of labor had also a stable and high growth rate until 2000. The production began to shrink from 1999 and the plant had to lay off thousands of workers. By the end of 2003, it had only 2400 employees. All the labor cost had to rely on debt since the plant stopped the production. The payroll ratio became extremely high in the last few years.

5.6.3 Profit margin analysis

The profit margin, also known as the margin of profit, is simply the difference between sales generated and the cost to produce each of the units sold. The ratio is sometimes defined as a gross profit margin or a net profit margin, depending on the nature of data that is under consideration. Businesses of all types pay close attention to profit margins as it is another important criterion to assess the current financial status of the company. The profit margin is often presented in terms of a percentage. The profit margin ratio of selling the main product of STP, the compact 4-wheel tractors, is shown below:

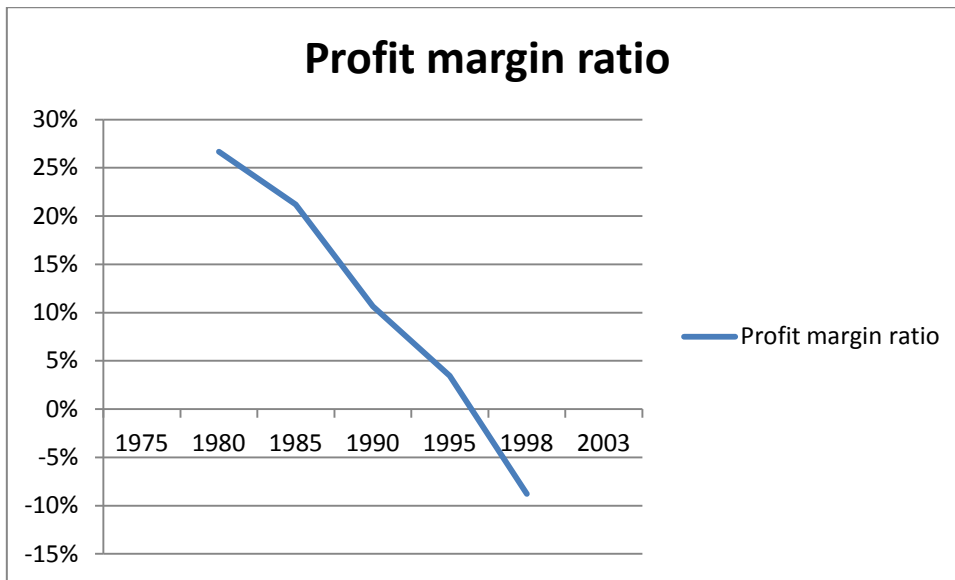


Figure 11: Profit margin ratio

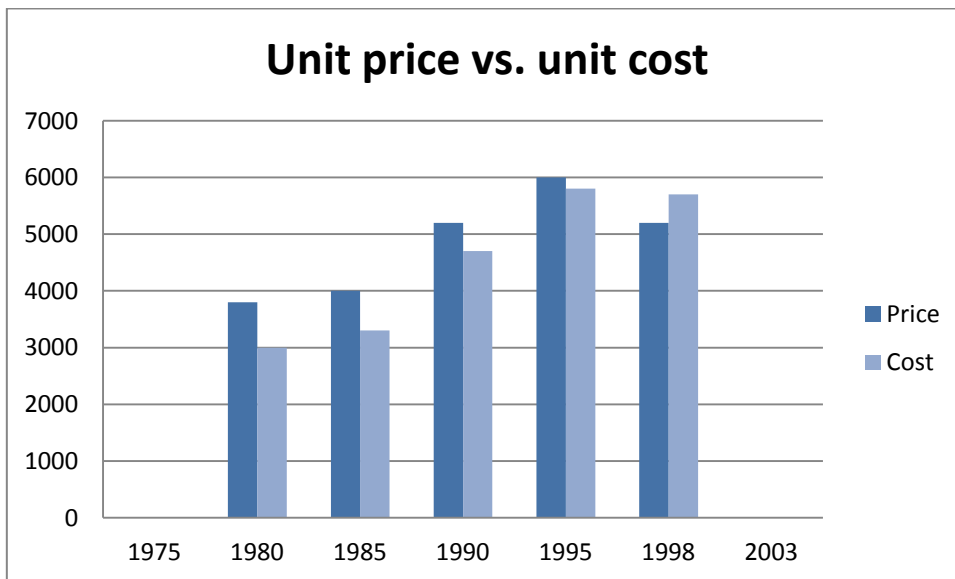


Figure 12: Unit price vs. unit cost

The cost of producing a tractor in 1980 is around 3000 Yuan, and it was sold for 3800 Yuan. Both unit cost and unit price increased in the next 15 years, however, the cost increased in a higher rate due to the excess employment and higher material costs. In the late 1990s, the market for compact 4-wheel tractors was in great price competition. More and more private enterprises entered the industry and they offered a much lower price because of their cost efficiency. STP had to lower its sales price in order to sell hold its market share. But the huge cost of producing a tractor made the company unable to compete with the new comers. The profit margin ratio went down year by year and in the end, they had to sell the products lower than cost.

By looking into the company from an economic perspective, such problems can be identified:

- There was over supply of compact 4-wheel tractors in the market, and the company failed to find a substitute product.
- The excessive labor is a big burden for STP.
- The company has a bad control of the profit margin ratio.

5.7 Summary

After looking at the company from these different perspectives, a series of conclusions can be drawn. There is not a single cause to the company's failure. The causes can be diverse and complex.

The problems diagnosed from the technical perspective, like the vague goals of the company and stiff organization, have a great influence to both personal and organizational levels in failing to motivate employees and resulting a hierarchical structure. This is reflected in the manager's responsibility of organizing. The technological limitation also led to decreasing profits of the company. This is reflected in the manager's responsibility of planning. The manager should foresee this problem and find solutions to overcome it. This is also the first task of the manager as it is a matter of the company's profitability in the future.

The organizational drawbacks result in bureaucracy which makes the company slow to adapting changes. Institutionalization stiffens the management and leads to cheating problems for employees. The state ownership brings many problems to not only one enterprise, but all SOEs. It became a part of the Chinese culture in the economic development. These problems are reflected in the manager's responsibilities of organizing and commanding. It makes challenges for the manager to take actions that can make the organization and management more efficient although the organization remains state-owned. Finding the balance between autonomy and subordination will be a difficult but important task for the manager.

The problems observed by the personal perspective are characterized by low productivity and low motivation of the employees. It results over employment and low efficiency in all SOEs like STP. The manager/director will not achieve all his responsibilities since he is not motivated either. It makes everyone who works in the company work like machines. Therefore, actions that can motivate everyone in the company should be taken in order to create an organization with better coordination and high productivity.

The environmental perspective identified some problems that affect each level of the company. The fast changing environment highlights the personal and

organizational problems and the environment itself contributes to the cultural characteristics. The poor monitoring and forecasting ability made STP slow to adjust itself to the turbulent environment and initiate any technologic revolution; therefore, it lost the market in the competition. These problems are reflected in the manager's responsibilities of planning and controlling. It requires the manager to make a careful study of the business environment and the company's market situation. A comprehensive understanding of the business environment will help the manager to relieve these problems.

The state-owned enterprise culture is characterized by problems from both organizational level and personal level. There is a big conflict between the traditional value and the modern enterprise value which makes companies that share the SOE-culture difficult to change. The drawbacks from this SOE-culture reflect directly on the economic performance. This problem relates to the manager's responsibilities of organizing, commanding and coordinating. If the manager manages to identify these drawbacks and find effective solutions to deal with them, it will make the organization more "organic" and improve its financial performance.

The combination of a turbulent environment and the ability to innovate both can affect the company's economic performance. When the company makes less profit than before, it doesn't have enough capital to support the technology innovation. This again pushes the company into an inferior position in the competition. So the relationships between these perspectives can be shown in the figure below:

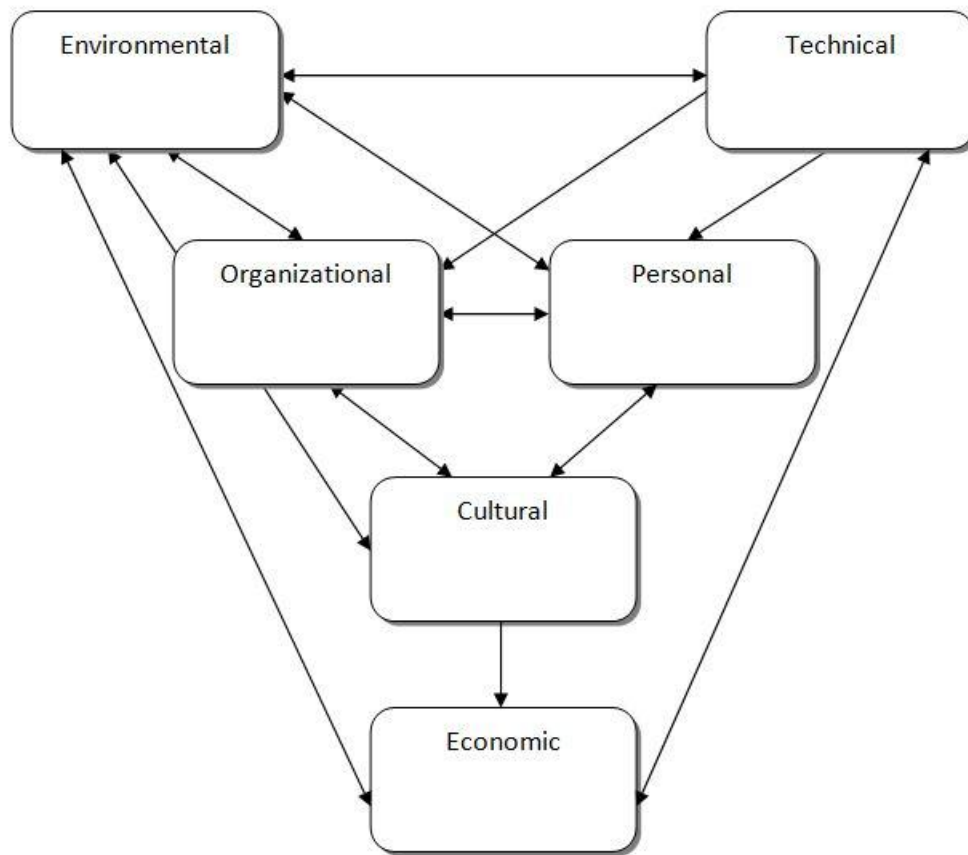


Figure 13: Causes to economic failure

Chapter 3 introduced the concept of managerial responsibility that identifies the manager’s functions in each perspective. These functions also connect with and reinforce each other. (Figure 14) Planning includes some very important steps like determination of the objectives of business, formulating policies, regulations and budgets. It predetermines all the other functions of the manager. An overall and careful planning will help the manager to organize the company, group activities that are closely related, assign duties and responsibilities to employees, and delegate authority and power to each employee or group. Communication, leadership, supervision and motivation are the elements come under the function of commanding. A well-organized company offers great advantages to ensure the employees work effectively and efficiently. Coordinating is about binding together, unify and harmonies activities and efforts. A great coordination comes from disciplined and motivated employees. When the requirements of these functions are met, the manager will have to control to see if everything occurs in conformity with

policy and practice and in the same time offer feedbacks to make planning in the next period even better. The connections of these functions and the complex relationships between the six perspectives together indicate that the problems of STP are complicated, however, related.

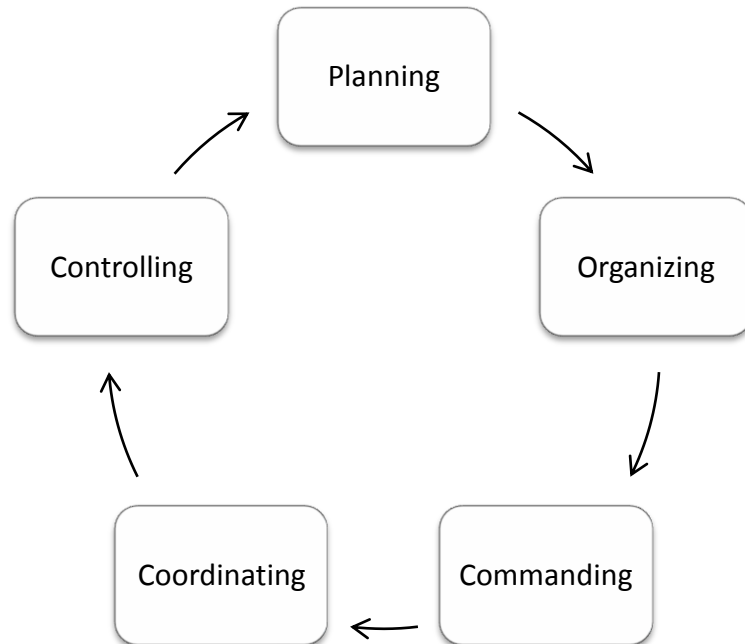


Figure 14: Connections between manager's functions

6 Recommendations

It is a complicated and long process of how Shijiazhuang Tractor Plant developed in the last 30 years. During the review of the company's development, a lot of complicated problems have been identified. Since these problems are coming from different perspectives, a systematic approach is needed to deal with the problems. The Balanced Scorecard by Kaplan and Norton (1992) is a useful framework to apply.

In the recent years, the focus of business analysis of organizations has shifted from the single financial perspective to multi-perspectives which include other important non-financial indicators. One of the most popular methods of MPA is the Balanced Scorecard. Similar to the famous quote from Einstein, Kaplan and Norton begin by saying that "What you measure is what you get." The organization's measurement system affects the behavior of managers and employees. Traditional financial measurements can provide misleading signals. Some alternative measurements have been recommended based on non-financial performance indicators. The BSC is a strategic approach and performance management system that enables organizations to translate a company's vision and strategy into implementation, working from 4 perspectives: financial perspective, customer perspective, business process perspective, learning and growth perspective. The relationships between these perspectives can be showed in the figure below:

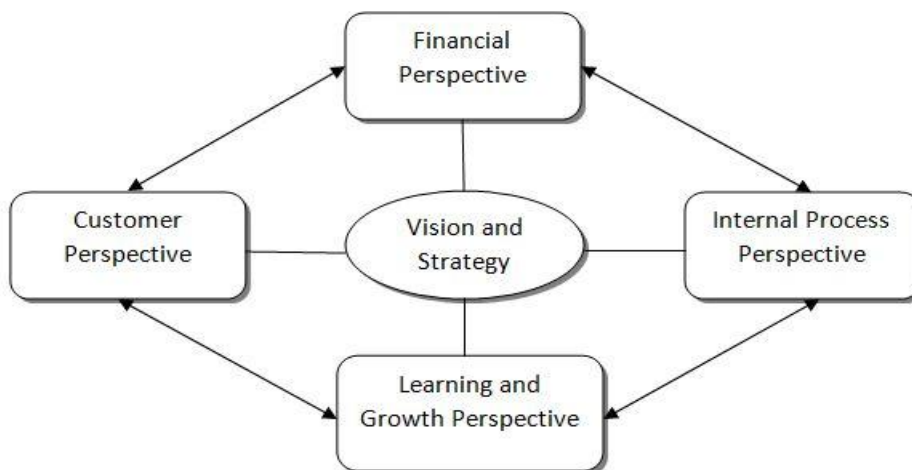


Figure 14: Balanced Scorecard

The idea is that each perspective builds on the previous one. If the company trains its employees (Learning and Growth) they will make the company run more smoothly (Internal Business Processes). A better running business takes better care of its customers (Customer), and satisfied customers will consume more products (Financial). The financial benefit will then contribute resources to the other sectors that make it possible for the whole model to work as a system. The BSC is a methodology for the transformation of an organization's strategic goals into realistic performance indicators, which should allow an adequate connection between long-term strategic goals and the company's short-term actions. It is widely used in the world to evaluate the overall performance of a company and is very similar to the classification of perspectives in the case of STP. By putting this into practice, we can create a unique strategy and visualize it in a cause-and-effect map; align the organization and its processes to the objectives identified in the strategic map; design meaningful key performance indicators and use them to facilitate learning and improved decision making.

The BSC allows managers to look at the business from four important perspectives. It provides answers to four basic questions:

- How do we look to shareholders? (Financial perspective)
- How do customers see us? (Customer perspective)
- What must we excel at? (Internal business process perspective)
- Can we continue to improve and create value? (innovation and learning perspective)

We can answer each question by setting goals, measures, targets and initiatives. The solution for STP can be summarized like this:

Vision			
To be a leading company in agricultural vehicles by meeting farmer's need in modern times.			
Financial perspective			
Goals	Measures	Targets	Initiatives
Asset utilization	Cash flow	Not less than targeted amount	Keep balance of payments credits and debts
Profitability	ROE	Above 12%	Increase alternative revenue
Reduce cost	Profit ratio	Above 20%	Refine pricing
Customer perspective			
Goals	Measures	Targets	Initiatives
Keep original customer	Customer retention	More than 80%	Get feedback from customers and improve on it
Acquire new customer	Market share	Above 20%	Launch marketing campaign
Customer profitability	Percentage of unprofitable customers	Less than 5%	Find reasons for unprofitable customers
Internal business process perspective			
Goals	Measures	Targets	Initiatives
Manufacturing excellence	Unit cost	Not more than 4000 yuan	Save cost on every possible item
Improve core competencies	Competence benchmark	Higher than 3 out of 5	Develop sustainable practices
Improve	Time to	Within 2	Carry out market research and

innovation	develop next generation of product	years	identify customer's needs
Learning and growth perspective			
Goals	Measures	Targets	Initiatives
HR development	Extent of employee empowerment	More than 90% extent employees	Improve internal communication
Technology leadership	R&D as % of sales	Not less than 5%	Set up R&D department with qualified people
Motivate workforce	Labor efficiency (output per worker)	More than targeted amount	Associate individual performance with reward

Table 4: BSC solutions for STP

The actions made from the financial sector correspond to the economic perspective by supervising the product cost and the company's profit. A healthy financial performance will supply enough resources/rewards to innovation and the workforce. The personal perspective corresponds to the learning and growth sector in the table which focuses on the quality of the workforce and the speed of innovation. Well-motivated workforce and constant innovation will support the internal business process sector that corresponds to the technical perspective by improving the company's core competence and maximizing productivity. An excellent manufacture mechanism and a sustainable competitive advantage can facilitate the company to gain more customers and greater market share. Loyal customers and rising market share are the goals for the customer sector which corresponds to the business environment perspective. These actions can induce the company to observe and follow the market trend which can furthermore bring more profit to the company. The purpose of all these actions is to realize the vision of the company which has a focus on a modern management to keep pace with the times. Everything we do

needs to meet the requirements of the modern times. There might be difficulties coming from ideology, technology and sociology. Finding a new way to be able to adapt the western corporatization to the Chinese society will be a crucial task for the company. The expression of vision and strategy is also the solution to the cultural perspective in the analysis which affects every other sector in the BSC model.

However, there is still one problem that the BSC does not cover. That is the ownership problem. We have confirmed from the organizational perspectives that the state ownership imposes great limitations on the management of the plant. To solve this problem, privatization and corporatization without being privatized are the most discussed solutions for SOEs in China. STP is an example of corporatization while the plant still stayed state owned. At the first glance, people will say it was a big failure for STP. However, it did help the management to gain more autonomy and power became less centralized than before. It didn't work for STP because there were some other problems like the forced acquisition, weak market demand that pushed the company to bankruptcy. Privatization could be another effective solution that was encouraged in the SOE-reform plan. The management of a privatized company would be totally set free from the state's control and be more active in making decisions and motivating employees. Figure 15 shows the historical trend of employment in SOEs in China. We can observe a clear decline in employment especially since 1997 when the SOE reform plan was put into practice. This phenomenon also tells us privatization is a trend for SOEs like STP.

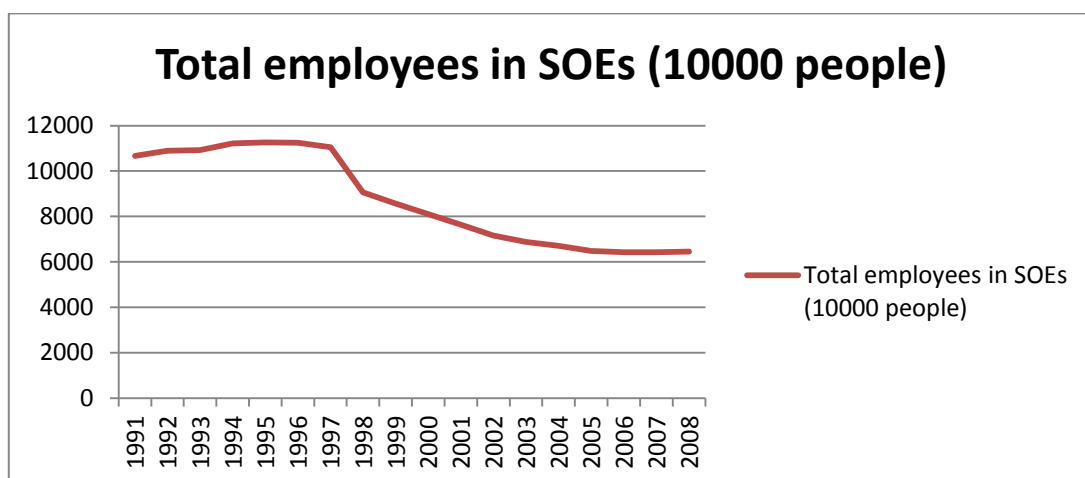


Figure 15: Employment in the Chinese SOEs

Figure 16 shows us the comparison of profitability between SOEs and non-SOEs in the Chinese transport equipment manufacturing. They follow the same trend with each other, but the non-SOEs make much higher profits. It also confirmed the problem observed from the organizational perspective that the state ownership restricts both management and performance. Therefore, privatization could have been a primary alternative for STP to solve its problems.

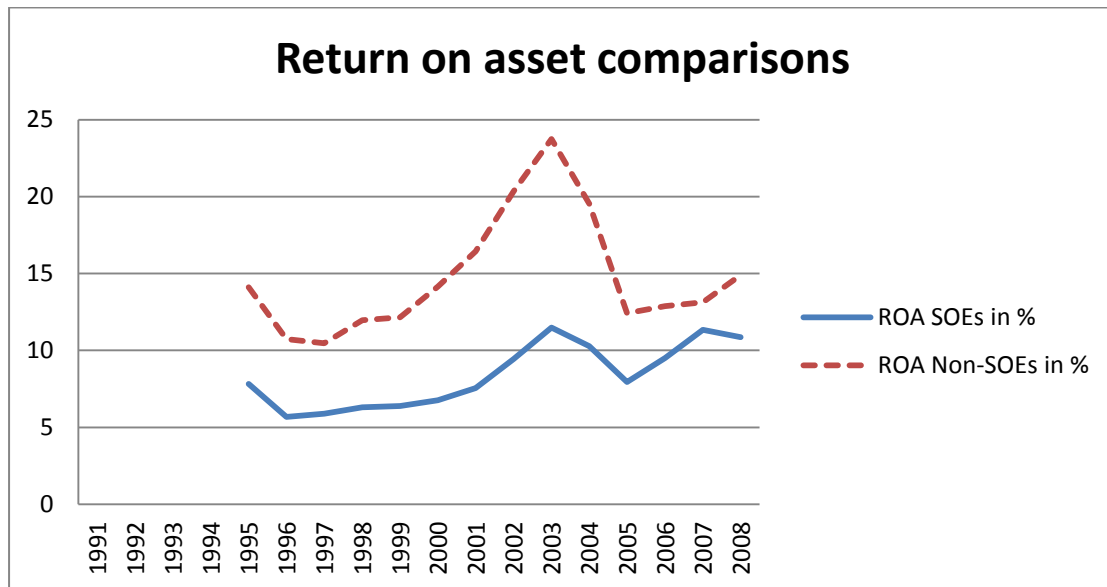


Figure 16: ROA comparisons

7 Conclusion

Despite the rapid progress China has been making in corporate governance, serious problems abound in various aspects of Chinese institutions and practices. Shijiazhuang Tractor Plant has its own problems. For example the mediocre product, the uninspired leadership beholden to party officials, the obsolete technology, the over-employed workers and rewards based on meeting plans set by government agencies instead of economic performance all contribute to the bankruptcy of the company. However, that is exactly why the state carried out the reform plan in Chinese SOEs that experience the similar problems. To answer the research question of this paper: if Shijiazhuang Tractor Plant is fated to die after the SOE reform in China, the answer is no. Looking at the surface of the case, some people may say that the reform accelerated the bankruptcy of the company. Some of the reform actions are the causes to the death of the company. But after a thorough multiple perspective analysis, it is shown that the problems and conflicts of the company has been prevailing for a long time. Even without the SOE reform, the company would not survive long. Changes are necessary for STP. The company had chances to make a change during the reform plan was taking into effect. But the manager did not have a systematic plan to save the company. There was too much focus on the financial performance while neglected the importance of other factors.

However, there are some limitations of this paper. Since the company does not exist any longer, it is very hard to collect data like financial reports in sequence years. Therefore, detailed statistics cannot be applied. Interviews with the people who worked in the company is my main data collecting method. Interview is a good way of qualitative methods which can help in the explanation of some complex phenomena and clarify some of these issues. But the biggest drawback compares to quantitative methods is that only a small portion of people are being interviewed. In this case, that doesn't mean that the opinion of these people will necessarily be the opinion of all the others, therefore make it difficult to maintain objectivity. In addition, we have to keep in mind that there is an infinitely complex parade of events and phenomena located in space and time. This is "how the world is". Many interpretations and descriptions of aspects of "how the world is" are possible, we

should not expect to be able always to synthesize these distinct interpretations and descriptions in one more comprehensive interpretation or description. In many situations the concept of the independent observer is not possible – the observer's values influence experimental outcomes. This is also the reason for me to use multi-perspective to analyze the problems in this paper.

Because of the limitations of resource and subject, this paper can only offer an insight of the problems inside STP. There are some other related subjects like the contradiction of the Chinese culture and the Western economic theories, and the effectiveness of the SOE-reform is all worth deeper study. China is a country that has formed its unique model in the economic development, so are the companies that operate in this country. Only through continuously study and research, we can find the key to success in the Chinese manufacturing industry.

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