Corporation level strategy of the International Joint Venture in China

Graduation project thesis

Handed in to

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Abstract

China’s economic reforms and increasingly open up policy bear the potential for an IJV. Due to the labour costs, market potential, distributions and government supports, it seems beneficial to have an IJV with Chinese partners.

The German company DIHAG, as a minority of the IJV with its Chinese partner GSFFG for three years, supports technology sources while the Chinese partner steers in marketing, sales and other sections. Although the performance of both partners is positive and also the future of this IJV is good, some strategies and concepts in doing international business of its partner are still different from DIHAG’s concepts. As a result, the organizational benefit of DIHAG is not satisfying. In order to maximize DIHAG’s long term benefit of this IJV, DIHAG is considering getting the 100% ownership of SHD. “Revolution” of SHD has therefore become the core task of DIHAG. There are few challenges of the revolution; How to establish the right marketing concept? How to create the sales organization in the global market?

The whole thesis is divided into five parts. The first chapter introduces the problem definition and research methods. The second chapter addresses the theoretical framework of PEST Analysis and corporate level strategy. The third chapter gives the inside information of DIHAG and analyzes the Chinese foundry industry by using PEST Analysis. The fourth chapter is the keystone of this thesis, combining the theoretical aspects into the practice of DIHAG. The last chapter, addresses the conclusion as well as the recommendations.

Key words: International Joint Venture, PEST Analysis, corporate level strategy, foundry industry
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<tr>
<td>DIHAG</td>
<td>Deutsche Gießerei-u.Industrie-Holding AG</td>
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<tr>
<td>GSFFG</td>
<td>Guangdong Shaoguan Foundry and Forging Group Co., Ltd.</td>
</tr>
<tr>
<td>SHD</td>
<td>SHD Foundry Co., Ltd.(a joint venture of GSFFG and DIHAG)</td>
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<tr>
<td>IJV</td>
<td>International Joint Venture</td>
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<tr>
<td>PEST Analysis</td>
<td>political, environmental, society, technological Analysis</td>
</tr>
<tr>
<td>MNC</td>
<td>Multinational Corporation</td>
</tr>
<tr>
<td>ISO</td>
<td>International Organisation for Standardization</td>
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<tr>
<td>IT</td>
<td>Informationstechnik</td>
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<tr>
<td>HR</td>
<td>Human Resource Management</td>
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<tr>
<td>U.S</td>
<td>United States</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>WTO</td>
<td>World Trade Organisation</td>
</tr>
<tr>
<td>OEM</td>
<td>Original Equipment Manufacturer</td>
</tr>
<tr>
<td>P.R.C.</td>
<td>People’s Republic of China</td>
</tr>
<tr>
<td>R &amp; D</td>
<td>Research and Development</td>
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</table>
Acknowledgement

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1 Introduction

1.1 Problem definition

IJV is becoming an increasingly common way for companies to form strategic alliances, because there are many reasons for creating an IJV, such as complementary capabilities and resources etc. However, the control and management of IJVs present a particular challenge when there is a large distance between the partners in terms of geography, culture and institutional environment.

The German company DIHAG has established an IJV relation in China for three years, the Chinese partner GSFFG owns 65% shares as a majority, DIHAG supports in the form of process technology, product design, systems, and training with a share of 35%. Up to now, the performance of both partners has been positive and the potential of the Joint Company SHD is huge. Therefore, DIHAG is considering taking over all 65% share from its partner GSFFG in the next step. However, there are few challenging areas between each partner. Therefore, Mr. Weidemann who is responsible for the company and the IJV in China has asked me to contribute some findings and reviewing for this IJV relation. He believes that to understand the original causes of the problems are very important for resulting in a high and successful performance. Moreover, he points out the dilemma for the next steps of DIHAG concerning the IJV with its Chinese partner GSFFG as there are:

- How to establish the right marketing concept?
- How to create the sales organization for the global market?

According to his arguments, the purpose of this work is to apply particularly aspects of IJV and corporate level strategy to DIHAG and analyse the Chinese foundry industry and give findings and advices involving these two problems.

1.2 Research methods

The theoretical parts of this paper illustrate three main parts: International Joint Venture, PEST Analysis and corporate level strategy based on relevant literature, which describe “managing international Joint Venture-the route to globalizing your business”, published by Glifford Matthews, and “Exploring corporate strategy” published
by Gerry Johnson, Kevan Scholes and Richard Whittington. And other relevant studies of internet and other literature.

The practical task is to find out the original causes of the problems and give advices to DIHAG. Company related information is extracted from catalogues, internet sources and based on primary research, discussions, and questionnaire.

2 Theoretical approach

According to these two problems, the theoretical framework is based on, PEST Analysis and corporation level strategy.

2.1 PEST Analysis

A PEST analysis is an analysis of the external macro-environment that affects all firms. P.E.S.T is an acronym for the political, economic, social, and technological factors of the external macro-environment.¹ It is very important that the firm must prioritise and monitor those factors that influence its industry.

2.2 Corporate level strategy

Corporate strategy is concerned with decisions of the corporate parent about (a) the product and international scope; and (b) how they seek to add value to that created by their business units.²

2.2.1 Diversification strategy

Diversification is a strategy that takes the organization into both new markets and products or services.³ Diversification might be undertaken for a variety of reasons, some more value-creating than others. Three potentially value-creating reasons for diversification are as follows: first, there may be efficiency gains from applying the organization's existing resources or capabilities to new markets and products or services. Second, there may also be gains from applying corporate managerial capabilities to new markets and products and services. Third, having a diverse range of products or services can increase market power.

¹ http://www.netmba.com/strategy/pest
2.2.2 **Value creation and the corporate parent**

Corporate parents may seek to add value by adopting different parenting roles: the portfolio manager, the synergy manager or the parental developer.

### 2.2.2.1 The synergy manager

The synergy manager is a corporate parent seeking to enhance value across business units by managing synergies across business units. In terms of corporate parenting, the logic is that value can be enhanced across business units in a number of ways: resources or activities might be shared; there may exist common skills or competences across businesses; however, the problems in achieving such synergistic benefits are similar to those in achieving the benefits of relatedness. Specifically: excessive costs; overcoming self-interest; the illusion of synergy; compatibility between business-unit systems and culture; variations in local conditions; and determination.

### 2.2.2.2 The parental developer

The parental developer is a corporate parent seeking to employ its own competences as a parent to add value to its businesses and build parenting skills that are appropriate for their portfolio of business units. The issue is not about how it can help create or develop benefits across business units or transfer capabilities between business units, it is about managing synergy. Rather parental developers have to be clear about the relevant resources or capabilities they themselves have as parents to enhance the potential of business units. Managing an organisation on this basis does, however, pose some challenges: identifying capabilities of the parent; focus; the `crown jewel` problem; mixed parenting; sufficient `feel`.

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3 Information in / outside company

3.1 Information inside company

3.1.1 General Aspects

3.1.1.1 Company background

DIHAG (Deutsche Giesserei-u. Industrie-Holding AG), DIHAG group nowadays is one of the leading producers of castings in Europe, stared in 1993 with the first foundry "Meuselwitz Guss". At present 11 foundries with a wide range of product program are belonging to the DIHAG group. They are situated in Europe and China. These foundries with long traditions have been modernised and enlarged in the last few years. The total employees amount to 2000. The total production of casting had increased in the years from 2000 up to 2006 from 86.308,00 t to 197.400,00 t. For the same period, the turnover had grown from 127.6 mil € to 276.9 mil €. (See following charts) In the year 2006, the direct exportation quote was 33.6 %. In connection to indirect exports it must be mentioned in that an important number of castings which are supplied to German turbine manufacturers and machine builders are assembled in installations for foreign countries. All traditional foundries united within the DIHAG group have retained their independence as operational units with their high production standards, the recognized know-how of their experts and the productive technologies. These highly flexible foundries are extremely well prepared for the ever increasing demands of their markets. The major markets are in Europe. The activities are also very dynamic in markets like America, China and Korea.

Development of the total turnover of DIHAG
3.1.1.2 DIHAG’s organization, strategy and culture

**Organization:** The DIHAG group is a shareholder company, the overriding management problem is must make a profit. It is a mature organization with both vertical hierarchy and horizontal specialization. Every subsidiary company of the DIHAG group has a management responsible for the development of the company (product portfolio, capacity expansion and marketing). They must report monthly to DIHAG; important investment decisions have to be discussed with the board of DIHAG. The plan of each company for a period of 5 years has to be discussed with DIHAG.
Leadership and culture: The executive of DIHAG, Mr. Weidemann, said “he consistently turned problems into opportunities and always has a positive attitude towards difficulties.” And he also pays extraordinary attention to the details of the business; he holds regular monthly meetings in some foundries. He is constantly bypassing formal structures to talk directly with front-line managers, particularly the production and sales groups. He is interested in foundries operations and also in the workers there. When he visits the foundries he tries to talk with the workers there and offer a few words of praise, encouragement or advice. On the other hand, he is very strict to the employee who does not work hard and does not show any interest in working. He suggests that every company should give an “open-door” festival to employees every year; at this festival employees can bring along their families. In the headquarters, invitations to concert, theatres and dinners are typical DIHAG style. He believes that experience will keep the motivation high for employees. Headquarters and subsidiary companies operate very informally. It is reflected in the neat but casual dress of the employees, in the relaxed office atmosphere. However, in foundries, due to the security issue, every worker must wear work-protection dresses.

The strategy: The heart of the DIHAG strategy is its product range. The executive points out “to grow the exiting products and to add new products constantly” He says that each company must set up clear product portfolio guidelines, focusing on quality, price and marketing.
DIHAG has a wide range of products, each foundry is specialised in different fields and segments. (See following chart). The product weight range from 0,1 kg to 140 t. There is no competition among each other.

**Turnover 2006 of the most important customer groups of DIHAG**

- Plants, equipments 17,5%
- Ship and offshore construction 15,9%
- Energy plants/ wind energy 15,0%
- Machines 14,6%
- Iron and steel industry 13,0%
- Conveying/ drive technology 8,0%
- Printing/paper machinery industry 6,5%
- Construction and construction material industry 6,2%
- Automotive industry 1,6%
- Railway equipment 1,7%
- Other groups 1,7%

- Printing/paper machinery industry 6,5%
- Construction and construction material industry 6,2%
- Automotive industry 1,6%
- Railway equipment 1,7%
- Other groups 1,7%
The vision of the future is: is to become the leading foundry group in Europe. The following strategic principles will be essential for the success in the future.

- Market leadership within the single product ranges
- Constant optimizing of the product fields and casting products
- Extension of the product programme
- Concentration on casting demanding with regard to moulding and to metallurgy
- Constant increase of production spectrum
- Consistent cost management
- Covering of niche products
- Development of new products (R&D).

The mission statements: to become the biggest foundry group in Europe by improving the quality and innovating products constantly.

3.1.1.3 The background of the IJV in China

Due to the expected increasing demand of castings and cost competition, DIHAG must consider to go into global.

At the beginning the question for DIHAG was, if an additional production plant for machine moulded steel castings complementary to the existent plant in Germany should be build due to the expected increasing demand.

After having studied the market and the competition situation with a positive result, DIHAG had to make the decision at which area the future production should take place.

For this decision, the following main factors have to be considered:

- The new foundry should cover primary the need in the Asian area, especially as some of the customers of DIHAG in Western Europe already have installed
production facilities mainly in China and do not want to buy the required castings from Germany in the future.

- Moreover, the U.S. American market should be served from the new foundry.
- The German plant, serving mainly the Western European market, is and will not be able to cover all segments of the existing demand of castings due to the cost situation.
- The goal was to find the place with the advantage of lower labour costs and with foundry experienced workers.

After consideration of the different factors DIHAG made the decision to build up a production in China, if possible with a partner disposing already of foundry activities.

In this connection, the idea was to transfer the moulding line existing in the German foundry and producing excellent casting qualities, but to be generally overhauled for the new foundry and replace it by a new installation.

It has to be mentioned that such a general overhaul takes a period of at least six months and no production can be effected during this time.

Following this, DIHAG made examinations regarding the Chinese company already working and the steel casting sector in order to contact them and discuss possibilities for a Joint Venture.

After the first contact DIHAG has had the impression that GSFFG could be the right partner for the new production plant.

3.2 PEST Analysis-casting market condition in China

The paragraph is a comprehensive analysis of the Chinese general and foundry industry.
3.2.1 Political environment

China is in a state of transition now. Being a society-market country, China has carefully changed its political system in recent years, while dramatic changes have taken place in its economic system. Thanks to Mr. Deng Xiaopin, in 1979, China started its open policy and economic reform. The Chinese government persisted on carrying out the political guideline of developing economy and enriching Chinese people. In these years, although the leadership of this country had been handed over from Mr. Deng Xiaopin to Mr. Jiang Zeming and then Mr. Hu Jintao and although the world political environment had changed rapidly, the Chinese economy survived and kept going after the major world turbulences such as the collapse of the Soviet Union and Eastern Communist countries, and the financial crisis in Southeast Asia in 1997-1998. Being the largest developing country in the world, China has achieved an average annual GDP growth of nearly 8% in recent years. The living standard of Chinese people has been improved steadily. Now there is a remarkable shift away from command economic system toward mixed economic system in China. Such a transformation has also affected the current state policy related to foundry industry. Currently the political environment of the casting industry in China focuses on the following issues:

3.2.1.1 The establishment of ownership structural reform

Concerning the ownership structural reform, China has decided according to the “three benefits” fundamental principle to adjust and improve national economies’ ownership structure, to establish “the state-owned economy and enterprises systems as primary, the variety ownership economy and enterprises systems are developed jointly” economic system. This adjustment includes three proposals: first, to reduce the number of state-owned economy and enterprises, which means to withdraw the state capital from some sectors/firms. Second, to diversify the state-owned economic and enterprises form. Third, to stimulate the private economic becomes the main part of society-market economy.

The goal of the ownership structural reform is to increase the competitiveness in the global market. To meet this goal, the Chinese machinery industry introduces its proposal “to develop an open market system for about 40,000 machinery enterprises in China.” Although the foundry industry has many favour also conditions related to

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6 www. People.com.cn
plants, facilities and human resources, it still faces many existing difficult issues like not enough tasks, heavy losses, difficulties to survive and so on.

3.2.1.2 The fast increase in trade protection

Since the end of the 20th century, the global trade protection has increased dramatically. The object and shapes of trade disputes have changed and developed constantly. From the perspective of object of trade dispute, there are dispute between developed countries, from developing countries to developed countries, between developing countries. From the perspective of the shape of trade protection, anti-dumping, anti-tax and so on is the protection measurements. In addition, there are other barriers like Intellectual property right and technology standards.

Under such international political environment, the Chinese export has faced difficult situations. From 1995 to 2003, there were 2,416 cases about anti-dumping, there were 356 directed against China, and this was 15% of the total. China has become the country which is being aimed at anti-dumping frequently. In 2004, there were 49 cases of anti-dumping in connection with China, among which foundry industry was involved.

Involving with the object of trade disputes, there are not only developed countries, but also developing countries.

First, the United States are the biggest export market for China. According to the United States statistic, it is said that “while China’s trade surplus surged to record high 177.5 billion U.S dollars, the country was subject to 86 anti-dumping and trade protection probes in 2006, a year-on-year increase of 37 percent.” Due to the international competitiveness the United State’s iron steel, casting, spinning etc traditional industries is relative low; the pressure of unemployment is the largest. The export products are facing direct competition to these traditional industries.

Moreover, the trade dispute between the EU and China is increasing gradually. EU always carries out measures like anti-dumping, imposing barriers to technological trade and so on against the import products of China. Considering the Chinese industry the structure is similar to that of the Eastern EU members. The direct competi-
tion of export products between China and its new members has increased. Therefore, the EU might take more measurements in order to limit the import from China.

In addition, in recent years the trade between China and Japan has developed quickly, so that there might appear some disputes in certain sectors. Japan is the third biggest trade partner of China, the possibility of a possible trade war between these countries might be very small, but the sectors like exchange rate, foundry industry and agriculture products might give reasons for a trade dispute.

Furthermore, one should not ignore the increasing trade dispute between China and other developing countries. In recent years, the export from China to developed countries has increased rapidly; meanwhile, the export from China to other developing countries also grows strongly. Moreover, due to the competition of products between Chinese export products and domestic products of other developing countries, many developing countries carry out many trades protection measurements against Chinese products. Like anti-dumping, special protection provisions and so on.

3.2.1.3 The impact of China's entry into the WTO on foundry industry

On November 2001, China formally entered into the WTO. After China’s entry into the WTO, the development of the foundry industry will be more closely to global market, more easily connected with the international path, which implicates the Chinese casting products, will entry to a more opened market. The government intervention can only be realized by having more open, transparent polices. It has offered a more broad stage to the Chinese foundry industry. To China, completely said, there are many benefits and disadvantages of entering the WTO, advantages are bigger than disadvantages. The main influences are reflected in the following issues:

First, the stimulation of attracting foreign investment entry Chinese foundry industry. Foundry industry concentrates on physical labour: it stands for hot, dirty, and cumbersome. Chinese labour cost is relative low, raw material are very abundant. After entering the WTO, there were more and more Joint-Ventures and foreign owned firm entries into China. These firms bring modern facilities and technologies to China; give the pattern to the Chinese casting enterprise. At the same time, the competition also has increased; it resulted in closing down of casting foundries.
Second, the stimulation of economic scale of foundry industry. According to the WTO, everything must base on the provision and regulation. As a result, there is a reduction of casting foundries, which is appropriate to the game. But on the other hand, many casting foundries have benefited from economic scale, they profit from the WTO. Currently, the Chinese annua casting output is about 12,000,000, -ton. There are 24,000, foundries, which produce only an average of 500 ton/year. In 1997, the annual casting output of the United States was 14,500,000, - ton, there were only 3,000 foundries whose average production was 4,830 ton/year; in 1997, Germany had socalled “black foundries” in total 374. The average production exceeded 8,000 ton/year. Through the comparison of the above numbers, in can be concluded that there is still a big gab between the Chinese foundry industry and foreign foundry industries. Because of surplus of the Chinese casting capacity about 40-50%, many casting foundries are state-owned enterprises and are located in the middle of the city, moreover, the decline of state-owned enterprises are not able to bear a burden of transforming the facilities and pay attention to protect the environment. Therefore, there are some casting foundries which will be closed. Other parts will move to rural and raw material places in order to coordinate in order to survive. It results in the reduction of casting foundries. A few years ago, there were many flourishing small rural casting foundries which are more flexible. Due to the lack of technologies and management resources, the production skill is not good, the quality is low and also lack of capital investment. Consequently, the majority were closed or sold.

Third, the stimulation of complying with the international market requirement. With regards to the product, metal castings will be increased obviously, the output of graphic iron castings will also grow, grey iron and steel casting will decrease.

Fourth, the stimulation of supply of subsidiary materials. Market economy requires the strict requirement to quality, quality is the market. Due to the common lack of development ability and strategies of Chinese casting foundries, the trend of increasing competitive ability, reducing employees and increasing efficiency have forced those casting foundries to apply the OEM production method, change the old production habit “do everything” in order to stimulate more casting foundries focus on “Quality”. As a result, there appear many subsidiary material manufactures. For instance, coating, agglomerate, crude sand, inoculants, nodulizer, alterant, interalloy and pattern suppliers.
Fifth, the impact of the Chinese chamber machine industry. For 50 years, the Chinese chamber machine industry has made progress. There are about 60 chamber machine manufactures and 20,000 workers, currently. The Chinese chamber machine can fit out small casting foundries which produce annually about 5,000 ton black casting. In general speaking, the standard of Chinese chamber machine industry is not high, the most are copied, the quality is very poor, not really reliable, and service is not good. The reason behind is the lack of creation. After entering the WTO, government will not constitute inter policy to examine and approve to limit import. Therefore, the supply of foundry facilities will be faced the following circumstances: a. huge, constantly manufacturing foundries, automobile foundries, internal combustion engine, tractor foundries such facilities will depend on import. B. the market of the testing equipment like direct-reading spectral analyzer etc will be occupied by foreign brand; c. special foundries facilities including huge press machineries will also depend on import. D. the vertical parting flaskless moulding machine will be provided by foreign suppliers. By reducing the import tax of components, the Chinese machine foundries might more reliable; thereby a part of small professional fabrics can be satisfied with the requirement of technology improvement. E. along with the closed foreign foundries and the cancellation of examine and approve, there will be a set of second hand facilities of 90s entry into China. F. foreign foundries will move to China by establishing Joint-Ventures or wholly owned firm due to the huge Chinese market, they will bring new technologies, eliminate the out-of-date products, and adjust product structure, in order to increase the whole standard of chamber machine industry.

3.2.1.4 The law & regulations regulate the market competition

Market economy at the same time means law & regulation economy, the organization like ISO is accelerating to implement the regulations like Quality, security, environment in order to regulate the intense market competition, realize persistence development. Among which quality system authentication indicate the competition power; security, resource, environment regulations, standards and its authentication are decision for some industries and organizations whether they can acquire the competitiveness and whether they can further survive and develop.
3.2.1.5 Government pays attention increasingly to continuous development

China is a developing country with a population of 1.3 billion, by reason of the level of economy, in the past china sought particularly the development of economy. After the conference of the United Nations in 1992, each department of the Chinese State Council developed the continuous development strategy, which is “China 21 century Agenda”. This continuous development strategy includes the following six areas:

First, the development of economy. Second, the development of society, Moreover, the protection of resource. In addition, the protection of ecology. Furthermore, the protection of environment. Finally, the construction of capacity.

3.2.2 Economic environment

3.2.2.1 Microeconomics of Foundry industry

The rapid increase of GDP will drive the increasing demand of casting. The stable Increase of GDP has reflected the positive economic development situation in China. In the recent years, China has invested annually large fixed capital in some sectors, like: in Western China; for the Olympic game in 2008; in the energy construction and so on. According to some reports, China prepares to construct 15 embantiment dams (the three Gorges) in the next 10 years. All these infrastructure construction need big quantities of machines facilities, among those machine facilities there is 80 % made in casting. From the demand of casting industry, automobile industry, machine industry, mining industry, energy industry etc , the consumption of these industries is 62 % of total consumption. In recent years, under the stable economic situation, the demand of casting to these industries has increased; it offers a lot of market opportunities, since 1998, the demand rate of casting have raised by 15 %.

The demand of international market is stable; the potential of Chinese export casting is huge. The total demand of casting in the whole world is 80.000.000 ton /year. Because many Western industry countries are influenced by factors like energy, raw material, labour cost and pollution etc, the output of castings from these countries are reduced gradually. For instance, Japan’s casting output of 8.197.200 tons in
1990 had decreased to 5.972.100 tons in 1999; it had decreased by almost 30 %. Many Western developed countries take the measures like outsourcing from developing countries, in order to satisfy the demand of casting. For example, the gab of annually casting output in Japan is almost above 2.000.000 tons. Besides to establish Joint venture or Foreign direct investment in Malaysia, Vietnam, Indonesia etc countries in order to produce some part of casting, Japan purchases about 1.000.000tons of castings from international markets. The major suppliers are China, India, Taiwan, and Korea. In recent years, the casting output of Taiwan and Korea has also been reduced, they purchase from China mainland. Even some Taiwan enterprises move their companies China mainland in order to reduce cost. For the Chinese foundry industry, generally, it is a good opportunity. While the output fulfils the national market, the export market becomes bigger and bigger. The export of casting is increasing rapidly.

<table>
<thead>
<tr>
<th>Year</th>
<th>Exported casting weight (ton)</th>
<th>Annual increasing rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>1,041,781</td>
<td>5.9</td>
</tr>
<tr>
<td>1999</td>
<td>1,102,946</td>
<td>16.4</td>
</tr>
<tr>
<td>2000</td>
<td>1,283,980</td>
<td>5.6</td>
</tr>
<tr>
<td>2001</td>
<td>1,356,206</td>
<td>13.4</td>
</tr>
<tr>
<td>2002</td>
<td>1,538,097</td>
<td>10.7</td>
</tr>
<tr>
<td>2003</td>
<td>1,703,184</td>
<td></td>
</tr>
</tbody>
</table>

The export rate of casting in 1998-2003

With an average of the increasing rate 12%, up to 2010, the export output of castings in China is said to reach 5.000.000 tons. According to other information, in 2003, the contracts of purchasing casting components in China of automobile enterprises such as General Electronic, Ford have been reached 5 billion U.S Dollar in 2003. It predicts that within the next five years 6.5 billion U.S. Dollar will be achieved.

Concerning the quality issues, international market needs not only common castings, but also value-added, high-tech excellent castings. The quality and price are correlated. High quality can acquire high profit. The price of export casting in china is not considered to be good. The price of import castings is three times higher than that of exports. The president Keith Shephard of a British foundry pointed out that the foundry industry has shrunken, due to the globalization factor. The British and the EU are forced to purchase castings from China and other developing countries. He hopes that china can ensure the quality of castings. It requires that Chinese en-
Enterprises must be examined and approved through ISO 9000 system and ISO 14000 environment protection system. It should try to realize zero imperfection supply. Although Chinese casting output represents 23% of the world production of castings, the export quantity only amounts to 9.7% of the total national output. Thus it can be seen that the quality has been improved; the potential of export will also be increased.

Due to globalization, many manufactures of developed countries have been forced to move to other developing countries. On one hand, from the perspective of traditional labour or resource of developed country, the labour cost has increased gradually; it has lost the labour cost advantage. Therefore, it must move to other developing countries, in order to take advantage of cheaper labour cost and increase its competitive advantages in the world. Meanwhile, the pressure of environmental protection has been increased by government. Therefore, these manufactures of developed countries move to a developing country, which means the transmission of pollution. On the other hand, because of the decrease of profit of manufacturing industry, the increase of profit of service industry, many MNC have been forced to adjust their strategies, like, the transmission of manufacturing industry, emphasizing on giving more services to their customer rather than manufacture. Those kinds of adjustment of strategy have stimulated the transmission of going to other countries.

Since the 1990s, in East Asia including China, the status of global manufactures has increased rapidly. Within a few decades, the Chinese economic situation has changed basically. The volume of trade, economic scale, foreign investment scales takes the important position in the world. Chinese economy has become an important part of the whole world. By the rapid increasing economy, the Chinese foreign trade had risen also increased quickly. From 1979 to 2001, the volume of export/import trade had risen from 20.64 billion U.S.Dollar to 509.77 billion U.S. Dollar, with an annual increase rate of 15%. The export trade had increased from 9.75 billion U.S.Dollar to 266.2 billion U.S. Dollar. The annual increase rate was 155%. In 2002, China ranked in the fifth position of the world trade. In 2002, China overran the United States and became the country which capitalized on the foreign investment.

Due to the Chinese economic strategy which is opening up to the world and to change to the market economic system, China mainland has become one of the best investment countries in the world. Foreign investment plays a more and more important role for the Chinese economic development. Currently, there are many
famous international foundries, material manufactures and machine industries located in China.

3.2.3 Social environment

3.2.3.1 Huge population scale decide the huge market capacity

Concerning the consumption of castings per capital, the average consumption of castings per capital in developed countries is 45-55 kg. However, in China, there still do not reach 10 kg/per capital. It is obvious that the developing space of castings in China is still very big.

3.2.3.2 Abundant labour decide low labour cost

Foundry industry is a labour concentrated industry. The enter barrier is relative low, thus in China as an abundant labour resource country, especially after economic reform, the development of foundry industry is rapid. According to certain information, there are 24,000 foundries in China with more than 1,200,000 employees. There are not only large scale foundries which have advanced technology, high level mechanism, annual output of ten thousand tons, but also some outdated foundries.

3.2.3.3 Out-of-date development concept, neglect of saving resource, protect environment

Rapid development of industrialization needs the huge investment of resource. However, most Chinese enterprises do not see the protection of the environment as a development strategy. In 2003, China consumed 30% in total of the world iron and steel; 40% of total output of cement; 31% of total output of coal; however, GDP only amounted to 4% of the world. Energy industry has lack of efficiency and waste problem is becoming bigger and bigger. Like energy, the average consume index of industry countries is 0.8-1, but Chinese energy consume index is 1.6. Every 1 million U.S. Dollar’s GDP in China, the consumption of energy is 2.5 times more than that of the United States, 5 times more than of the EU, 9 times more than of Japan.
Every unit production of steel iron, it is 10% higher than the consumption of the Unite States.

Chinese industrialization development results in the increases of pollution. The major pollution include river basin, water, air pollution, photochemical pollution, dangerous chemistry, abandon chemistry pollution, nuclear radiation etc. It brings a lot of consequences like sandstorms, acid rain, shrink of lakes, disappearance of marsh, animal etc ecological destruction.

3.2.4 Technology environment

Concerning the technology factor, according to some information, China is the biggest casting producing country, but not strongest casting producing country. As to the technological level, there are still big differences between developed countries. Currently, the casting price in international market is about 1.000 U.S. Dollar / ton. Compared to this, the Chinese casting price is relative low. Beside the low production cost factor, the major reasons are that most export parts are belong to low level and are low quality products. Following the Chinese open policy, the number of Joint Ventures and Foreign direct investment rises, export and providing casting to the foreign enterprises in China becomes the main task of them. However, the technology and management skills are better than that of the national enterprises. If the Chinese foundries want to reach the same level as that of the foreign foundries or want to compete with them, they must make great efforts.

According the above analysis, it seems that China may continue to dominate mass manufacturing, providing a low-cost manufacturing base for foreign companies. But it is also rapidly acquiring technical and managerial skills and is becoming a growing source of intellectual capital for scientific work and Research and Development. It also provides immense marketing opportunities for global firms. Those which decide to not play now may lose their chance for a competitive advantage.

4 DIHAG´s next steps of IJV

The purpose of this chapter is to link the theoretical framework, the current Chinese casting situation and the situation of DIHAG together in order to analyse the problem and develop solutions. Furthermore, by using the theory of corporate level strategy
to analyse how DIHAG to restructure the strategies and objectives of SHD and to
add value in this business unit.

4.1 The future of the IJV SHD

The PEST analysis of foundry industry in the Chinese market aims to provide the
firm with appropriate information for identifying the market and formulating the de-
veloping strategy more systematically.

The PEST Analysis of the Chinese foundry industry indicates that there are a lot of
favourable policies and chances for the foundry industry. For example: the estab-
ishment of ownership structural reform, among which it is pointed out that the Chi-
nese government encourages “the state-owned economy and enterprises systems
as primary, the variety ownership economy and enterprises systems are developed
jointly as an “economic system. One of these reforms is to stimulate that the private
economy becomes the main part of society-market economy. The goal of the own-
ership structural reform is to increase the competitiveness in the global market. To
meet this goal, the Chinese machinery industry introduces its proposal “to develop
an open market system for about 40,000 machinery enterprises in China.” It means
there is almost no obstacle for DIHAG taking 100% ownership in China. Its potential
coopération market chances are big, but also the number of its competitors will in-
crease.

Moreover, China has entered formally into the WTO in 2001, the development of the
foundry industry will be more closely to the global market, and more easily con-
ected with the international path, which implicates the Chinese casting product will
entry to a more open market. The government has offered a more broad stage to
the Chinese foundry industry. It means that the decreased entry barriers and tariffs
will increase the competitive abilities of the Chinese foundry industry.

Also, the data point out that the annual Chinese casting output is about 12.000.000
ton. There are 24.000 foundries which produce only an average of 500 tons/year. In
Germany, the average production has exceeded 8.000 ton/year per foundry.
Through the comparison of the above numbers, it concludes that there is still a big
gap between the Chinese foundry industry and the German foundry industry. The
surplus of the Chinese casting capacity is about 40-50%. Furthermore, the trend of
increasing competitive ability and increasing efficiency has stimulated more casting
foundries on “Quality”. It means that DIHAG can help its partner GSFFG to gain the
competitive ability in achieving the potential market leader in the Chinese foundry industry through its quality and technology principles in order to add value in SHD. At the same time, DIHAG can take advantages of the low labour cost, abundant raw material and the surplus of casting capacity to reach its long term goals.

The reasons of international expansion of DIHAG is clear, the PEST analysis of the Chinese foundry industry has proved that the decision making of DIHAG to establish an IJV in China is right. The potential future of SHD is huge. The coming questions here are: whether the benefit of DIHAG has been maximized through this IJV? If not, what are the reasons for it? How can DIHAG find out the solutions to cope with those problems?

4.2 Original causes of two problems

Before giving advice to these two problems, it is very essential to analyze the original causes of these problems. DIHAG as a minority of this IJV by supporting technological sources, is not able to make decisions on marketing, sales and other sections. DIHAG realizes that some strategies and concepts of its partner GSFFG in doing international business are not suited to DIHAG’s concepts. The original causes of problems are the following issues:

- At the beginning DIHAG decided to invest 35% in this IJV; the reason might be eliminating potential risk of DIHAG. However, becoming a minority of the IJV might result in certain negative consequences. For example: DIHAG is not able to implement its strategies and concepts in certain functions, thus, it is difficult to maximize its benefit.

- The differences in culture, organizational structure, organizational benefit, personal benefit, management system, and managerial skill etc issues have decided different strategies and concepts occurred.

In conclusion, these two problems are caused by above discussed reasons. If DIHAG wants to cope with these two problems in order to maximize its long term profit, there are two steps which should be taken into account:

Firstly, it must take over the rest share to get the 100% ownership of SHD.

Secondly, DIHAG must restructure the current strategies and concepts of marketing, sales and other sections in SHD in order to add value.
4.3 Corporation-level strategy

The theoretical framework of "corporation-level strategy" can help DIHAG to analyze how to reach the goals. There are two central concerns regarding the "corporation-level strategy".

The first is: understanding the diversification strategy. The second is: creating value added at the corporate level as different from the business level in organisations. The different parenting roles play an important role.

4.3.1 Diversification strategy

Firstly, to understand the nature of the diversification strategy can help DIHAG to add value to its business unit SHD. According to three potentially value-creating reasons for diversification, DIHAG and GSFFG may benefit from:

- Applying the organization's existing resources or capabilities to new markets and products or services.

- Applying corporate managerial capabilities to new markets and products and services. For example, managers of DIHAG and GSFFG can add value to businesses that are operationally different. They can use different technologies distribution channels or brands etc.

- Increasing their market power through having a different range of products or services.

4.3.2 Value creation and corporate parent

With regards to the second theoretical framework of "value creation and the corporate parent", DIHAG should be able to create value by adopting different parenting roles: synergy manager and parental developers in order to improve the performance and develop strategies of SHD, it can help DIHAG to achieve the strategies and objectives.

DIHAG as Synergy manager: synergy which means existing activities or processes of DIHAG and GSFFG complement each other and those combined effects are very great.
• Resources or activities might be shared: the current existing distribution channels of both partners might be used; the offices of DIHAG and GSFFG may be shared in acting in different geographical areas;

• Existing skills or competences might be shared: DIHAG should share its knowledge in different sections like production and technologies, marketing, management, price calculation system etc to its partner, thus improving performance in SHD.

However, there are also problems in achieving such synergistic benefits:

• Excessive costs: in such sharing and transference of skills or competences, it needs a lot of costs in order to achieve such integration. It is not only financial cost, but also opportunities cost. DIHAG must take this issue into account.

• Overcoming self-interest: it should be considered from both sides that managers in the business units of DIHAG might not wish to share knowledge. And managers in GSFFG might not wish to cooperate in sharing activities, because they prefer or believe the traditional thinking ways of them are more beneficial to SHD.

• Compatibility between business-unit systems and culture: due to the different cultural terms, DIHAG will have difficulties to share its portfolio with GSFFG.

• Variations in local conditions: DIHAG and GSFFG have their operations. So that DIHAG might have difficulties in reconciling its approaches to its partner GSFFG.

• Determination: finally, DIHAG needs to be determined to achieve such synergies. The central staffs need to act as integrators, and therefore to understand the businesses well is very important. In terms of strategic development and control, DIHAG needs to be prepared to intervene at the business level in order to ensure the success of synergies.

DIHAG as the parental developer: this issue focuses on managing synergy. To enhance the potential and performance or image of SHD, DIHAG should act as par-
ents based on its great deal of experience in globalising domestically based businesses and its specialist skills in financial management, brand marketing or research and development. However, there are some challenges for managing this:

- Identifying capacities of the parent: DIHAG need to find out what can add value to SHD. For example, which products, which technologies, what kind of managerial skills to add value to SHD. Otherwise, it will not benefit from it, but will cause counter-productive and result in inter-competition.

- Sufficient ‘feel’: DIHAG need understand the businesses within the portfolio in SHD where they can add value and where they cannot. If DIHAG identifies it wrongly, it will lead to a counter-affect. For example: DIHAG transfers its management concept from DIHAG to SHD without considering clearly whether it is suited in operating to SHD.

To conclude, DIHAG must realise that synergistic benefits are not easy to achieve. This strategy is the keystone of coping with these two problems: how to establish the right marketing concept and how to create the sales organization in the global market? It can also help DIHAG to create add value to SHD in the future.

5 Conclusion and recommendation

5.1 Conclusion

To conclude, the International Joint Venture between the partners when there is a large distance in terms of geography, culture and organization environment, has shown that there are some particular challenges.

The purpose of this study was to find out the causes of these problems and to develop relevant advice. In order to achieve this, to understand the external, the internal environment and building up strategies by applying PEST Analysis and corporate-level strategy is very essential.

Before these two problems were carried out, the author realised that the most important step was to find out the related original causes. It has been identified that the factors that did have impact on these problems are two issues: the potential of SHD in the future is huge and positive in the foundry industry; DIHAG has a minority of SHD by supporting technology sources. Therefore its organizational benefits are not
being maximised, because the operations in marketing, sales and other functions of its Chinese partner are different from some concepts of DIHAG.

Therefore, DIHAG is considering getting the 100% ownership of SHD in order to maximize its profits. However, how can DIHAG find out the solutions to cope with the next problems concerning building the right marketing concept and suited sale organization in SHD have become the core tasks.

Based on the theoretical research, the author found out that the understandings of corporate-level strategy which is concerned with the overall purpose and scope of an organization and how value will be added to the business units of the organization will be the effective ways to solve these problems.

5.2 Recommendations

5.2.1 How to establish the right marketing concept?

It is very important for both partners to develop the right marketing concept, because it helps them to meet the long-term strategic objectives.

Regarding the theoretical framework of corporate level strategy, DIHAG and GSFFG should find out their competencies to develop their marketing objectives. There are three issues to accomplish:

- Maximizing sales of existing products in existing markets;
- Developing and selling new products;
- Developing new markets for existing or new products;

Moreover, based on their capabilities, an effective Marketing Mix (4 P product, price, place and promotion) should be created and maintained, in order to provide the right products, price, time and promotion. As mentioned, the shares of existing resources and skills between DIHAG and GSFFG are important to achieve this goal.

**Product:** developing product concept, according to the PEST analysis data, metal casting will be increased obviously, the output of graphic iron casting will also grow, and ductile iron and steel castings will increase. Forging parts will decrease considerably. Moreover, China has invested annually large fixed capital in some sectors, like: in western China; for the Olympic games in 2008; in the energy construction.
and so on. According to some reports, China prepares to construct 15 embantiment dams (the three Gorges) in the next 10 years. All these infrastructure constructions demand big quantities of machines facilities, among those machines facilities there are 80% casted parts. From the demand of foundry industry, automobile industry, machine industry, mining industry, energy industry etc, the consumption of these industries is 62% in total. In recent years, under the stable economic situation, the demand of castings of these industries has increased; it offers a lot of market opportunities. In addition, concerning the quality issues, international market needs not only normal castings, but also value-added, high-tech excellent castings. Therefore, DIHAG and GSFFG must have a consensus in their opinion, in order to react quickly concerning the demand of the market.

For example: - treadshoes for the construction industry;

![Image of a tread](image)

- wear parts for the coal mining industry;

![Image of a wear part](image)

- Special castings for wind turbines.

![Image of a wind turbine part](image)
In order to ensure the quality of products of SHD, there are some objectives: for example: coaching and training of people and managers in SHD, encouraging collaboration and coordinating across both partners; monitoring the performance of SHD against the standards which have been set regularly;

**Price:** DIHAG focuses on high quality products. The quality and price are correlated. High quality can acquire high profit. Setting right selling price of products is important to success. DIHAG should act as parental developer to support special skills in cost accounting and financial management. The right price can maximize the profit of DIHAG.

**Place:** the distribution channel for DIHAG and GSFFG in future is very important, because without the well organized channel structure, the products will not reach the right customers. (This issue will be discussed further in the second problem)

**Promotion:** take advantages of existing promotion sources and skills of two companies, because DIHAG and GSFFG have already successful promotion strategies.

The following factors play an important role, in order to achieve all above four objectives and maintain effective marketing mix.

Regarding the *market research and analysis issues*, both partners should contribute the market survey, for example:

- Market potential per product in a following quarter, per product for the next year;
- Information about the total quantity of products sold in the last quarter;
- Information about the number of companies that were active on the market in the last quarter;
- Price per product per competitor in the last quarter;
- Expected prices of raw materials in the following quarter or years;

Concerning *transfer of managerial skills and general management capacities transfer issues*, there are some suggestions:

- Both partners should communicate regularly, openly about goals, technical data, problems and changing situations;
- They should share knowledge and transfer skills in an open way;
- Dividing clearly responsibilities by setting standards and regulations;
- Both partner should be trustworthy and honourable;
5.2.2 How to create the sales organization for the global market?

As PEST Analysis mentioned, the demand of castings from international market is increasing, the potential of exporting for Chinese foundries is huge. The total demand of castings in the whole world is 80,000,000 ton/year. According to other information, in 2003, the contracts of purchasing casting components in China of enterprises such as General Electric, Ford have reached 5 billion U.S Dollar. It predicts that within the next five years 6.5 billion U.S Dollar will be achieved. Therefore, facing such big chances, it is important to decide by DIHAG and its partner GSFFG which end products, in what quantities, and at what prices should be offered on the various markets.

To create the sales organization in SHD is one of the important steps of DIHAG.

At first, it is recommendable to use the existing sales channels of DIHAG and GSFFG for the product of SHD as well as the existing customer relationships of both companies.

The marketing operations of SHD should be divided in two sections:

- European and US American markets should be responsible by DIHAG;
- The Asian market should be served by GSFFG;

The operations must be coordinated by a sales coordinator based in Germany.

Furthermore, the existing agencies of GSFFG in Europe have to be closed. The reasons are:

- These current agencies are more interested in a high turnover due to the commission resulting from this instead of finding and discussing the possible condition.
- A market survey has to be done regularly and carefully.
- The sales persons need specific foundry experiences and have to be trained and they must be familiar with the production possibilities and the program of SHD. Moreover, they must have the insight about the international industrial trends.

The strategies for implementing this sales organization are:

- GSFFG nominate a manager for the Asian market;
- DIHAG nominate a manager for the European and US American markets;
● These two managers must report to the sales coordinator located in Germany regularly.
● A meeting with the persons involved should take place quarterly. Alternately in China and in Germany. At these meetings, a review of the last quarter should be discussed and the activities for the following quarter should be fixed.
● The managing director of SHD as well as the president of DIHAG or GSFFG should participate in the meeting.

5.2.3 Short term, medium term and long term strategy in SHD

In addition, in order to install a continuous improvement process to reach the above mentioned goals and support the already mentioned strategies. I strongly recommend, firstly, DIHAG should set up short-term, medium-term and long-term strategy with its partner GSFFG for SHD.

Short-term strategy includes raising selling prices abroad. To achieve this strategy by emphasising on raising the quality of products of SHD to DIHAG’s level, it helps to adjust appropriate selling price and increase sales on domestic and foreign markets in future. Therefore, the technical expertises, training programs and price calculation program play an important role to achieve this strategy.

Medium-term strategy calls for developing more marketable and hi-tech products through increased R&D spending and capital investments in manufacturing facilities.

The long-term strategy is to become the market leader in the Chinese foundry industry.

5.2.4 The control “Plan, Do, Check, Act” cycle in SHD

Secondly, DIHAG should implement the control “Plan, do, check, act” cycle in SHD.

**PLAN:** in each department of SHD, there must have clear plans.
● In a technical department: planning for research and establishing design policy;
● In a sales department: preparation of daily or monthly sales;
● In a work shop: arranging daily operation, preparing operation standards, equipment, productions etc.
● In a financial department: for example, planning for cost reduction.
**DO:** put the plan into practice and operate according to the rules and standards.

**Check:** it is responsible for everyone involved to check their own work.
- In the foundry, the technical people check drawings, documents, and business forms of the produced quality products;
- In marketing, sales and financial department, the people check the result of every month in comparison to the plan;

**Act:** If the result differs from the standard plan, it must be corrected immediately. The people must investigate the reasons for any deviations and take action to prevent that this happens again.

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**Appendix**

**Questionnaire with Mr Weidemann and Mr. Mu, presidents of German DIHAG Giesserei Holding Company and Guangdong Shaoguan Foundry and Forging Group Co., Ltd**

**Questions:**
1. **So far, are you satisfied with your JV partner’s performance (GSFFG)?**
   Please motivate your answer.

   **Answer of Mr Weidemann:**
   "Up to now, DIHAG is satisfied regarding the cooperation with GSFFG.
   - GSFFG has proved to be a serious and experienced partner;
   - GSFFG is pushing together with DIHAG the development of the Joint Venture and is keeping consequently all agreements."

   **Answer of Mr Mu:**
“It can be said, the attitudes of both partners are sincere and positive. In comparison, GSFFG has paid out more; there are a lot of resources (human resources, material resources, financial resources etc.) involved to SHD project. Moreover it bears the market risk. The knowledge and evaluation of DIHAG to Chinese enterprises and markets are still in a gradual process. Therefore, their cautious attitudes can be fully understood.”

2. In your opinion, what are important factors to be considered before a JV is formed? Why does DIHAG establish JV relations in china? Are there any advantages and disadvantages?

Answer of Mr Weidemann:
A: It is very important to have clear ideas and reasons to establish a Joint Venture.

- Better market chances
- Cost advantages
- Transfer of experiences and technology
- Extension of capacity
- Fabrication of new products

B: reasons for DIHAG concerning a Joint Venture in China.

- Covering the need in the Asia area (deliveries from Europe will be nearly not possible in the future)
- Developing the business with U.S. American customers (especially for machine moulded steel castings)
- Lower labour costs
- Foundry experienced workers available

C: disadvantages

- Difficult controlling possibilities
- Language problems
- Culture problems
- Difficulties to find German commercial and technical managers prepared to stay over a longer period in China

Answer of Mr Mu:

“The reasons for establishing a strategic partnership with DIHAG is:

- Learning from the other different management models, managerial skills;
- Accessing the advanced foundry technology, learning the production skills;
Better market chances
To DIHAG, the goal of establishing IJV is that due to the cost and pollution etc problems which affect its competitive advantages in Europe, DIHAG has chosen to establish IJVs in China. The advantage to DIHAG is to get experience of Chinese markets and benefit from low labour costs in order to gain its comparable advantages.

3. Did there any difficulties arise during the first phase (negotiating agreement) of JV? How did you solve those difficulties?

**Answer of Mr Weidemann:**
"At the beginning of the negotiations DIHAG and GSFFG have had different opinions concerning the stipulations of the Joint Venture contract. After a lot of long and sometimes difficult discussions and negotiations in China as well as in Germany, a common solution was fixed."

**Answer of Mr Mu:**
"In the first phase (negotiation phase), the major difficulties were how to establish a trustful relationship between both partners. To the investor, it is very important to know the whole real situation of the partner; otherwise, it will influence their decision making. Herein included are the following issues: business situation, financial situation, organization structure, its experiences, leadership, and reliability. In order to make the negotiation successful, GSFFG have contributed a lot of efforts:

- To promise of ensuring the return of profit; eliminate investment risk of DIHAG;
- To agree DIHAG give an intangible investment in three areas like marketing, management, technology; to increase its equity share of IJV from 25% up to 35%;
- To promise an open, transparent co-operation between both partners.

As both partners were open, and sincere, it has had a good begin and has established a trustful mechanism."

4. What major problems did arise during the operational phase and control phase? (for example, product line dispute, technology utilization, culture problems, communications etc factors)

**Answer of Mr Weidemann:**
"In order to avoid bigger problems numerous visits of the staffs of GSFFG had been made at the German production plant of DIHAG before starting the activities in China. This was organized to see the working methods, the production flow, the organization as well as the handling of moulding line.

In addition, Chinese foundry workers have been trained over several weeks in the German plant of DIHAG."

Answer of Mr Mu:

"There are a lot of similarities of production management, human resources management, technology management etc between German and Chinese enterprises. The differences are manifested: the attitudes of dealing with problems and employees’ quality. Therefore, the co-operation of two IJV’s partners should be no big obstacle in a certain period.

The German representative headed the production and technical control functions. He contributes to sustainable improvement of production. During his management, there have been no accidents or misadventures within the last few years.

5. Do you agree “technology transfer is one of the more sensitive and difficult issues confronting JV managements? Why?

Answer of Mr Weidemann:

"It is no doubt that technology transfer is central point at the creation of Joint Venture.

In order to operate successfully, it is very important that the produced castings quality wise and price wise correspond with the requirement of the global market.

At the same time it has to be considered that in the future no competition with dumping prices between the Chinese foundry and German foundry will occur.

To avoid this, the stipulations of the Joint Venture contract must be carefully and clearly formulated."

Answer of Mr Mu:
“Technology decides the quality of products and market competitive abilities. Regarding “technology transfer is one of the more sensitive and difficult issues confronting IJV managements” my opinion is:

- To divide markets clearly (GSFFG has no intention to occupy co-operation partner’s market shares; )
- To produce and sale the products of technology transfer, which belong to both agreements, should give profit return to the technology transfer giver. For example, a product, which had been produced in SHB (a subsidiary foundry company of DIHAG), has been transferred to SHD now. DIHAG has provided the mould, technology and gives a lot of support. And GSFFG have offered a low cost production, therefore, the value of technology transfer has manifested in this example.”

Thus, to deal with this issue “technology transfer”, the crucial point is to manage the Profit allocation rationally.”

6. Which strategies do you adopt in order to drive successful performance?

**Answer of Mr Weidemann:**

“At first, the market and competition situation for the planned product portfolio have to be studied.

Then an at least five years forecast has to be established. Under consideration of the expected items as production volume, turnover, production related and financial costs as well as the overhead expenses

This forecast has to be checked quarterly, and if necessary adapted. In addition, corrective actions to reach the target have to be installed."

**Answer of Mr Mu:**

"In order to make successful IJV performance, the following issues must be paid attention to:

- Both partners must be legitimate.
- Majority must protect the minority’s right and interests.
- Both partners must be open in order to deal with the culture differences."
Concerning dealing with certain problems like production data, cost situation, financial situation as well as others, the methods, reasons and results must be informed on time, in order to get understandings. “

7. What is your opinion about” a successful JV relations”? How do you measure it?

Answer of Mr Weidemann:
"It is important that both partners have the firm intention and similar opinions to drive the JV successfully.

A monthly reporting and comparison between the forecast and the real figure serve as tools for measurements.

Also a benchmarking (product tonnage, turnover and labour cost per worker) with the other facilities within the group will show if the JV is operating successfully or not. “

Answer of Mr Mu:
“The successful, healthy performance of IJV is manifested by the following issues:

- The operation of IJV is continuous, there are no heavy financial losses. After certain period, the IJV yields profits to both partners. Furthermore, IJV should become a self-managed enterprise gradually.
- Both partners are satisfied with the development and strengthen their confidence of investment.
- Capital situation is positive and increasing.
- The incomes of employees increase steadily. The teams are efficient and stable.
- The IJV should have a certain reputation in the society and contributions are positive."
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