Market Economy Model of Chinese Management

Case of Haier

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Abstract--To explore a new style of Chinese management by the case study of Haier is the objective of this paper. Haier is the largest consumer electronics company in China. Wages of workers are only based on piece rate and determined by the rightly done jobs and the defects in their jobs. The evaluation of workers for wages is individualistic, instantaneous, quantitative, monetary, competitive and open. There is practically no room for discretional evaluation by supervisors and managers. Engineers who want to become the heads of new product development projects apply for the position with new product development plans (open competitive bidding). The salary of project managers and their subordinate engineers is determined by the market performance of new products such as the sales, the quality claims from customers and the costs of new products. Haier's management is based on the market principles of economics. It is the market economy model of management. And it is spreading among growing Chinese companies. We may say that they are more capitalistic than Japanese companies and even American companies.

1. Haier Group

The objective of this paper is to explore a new style of management of Chinese companies through the case study of Haier Group (later, Haier).

Haier is the largest Chinese company in the consumer electronics industry. It was established in 1991 when a company called Qingdao Refrigerator born in 1984 was transformed to Haier. Its product lines include refrigerators, freezers, washing machines, air conditioners, TV sets, mobile phones, PCs and so on. It is recently entering into non-manufacturing fields like finance and service businesses. Its sales amounted 60.2 billion Rmb. (about 7.3 billion US dollars) in 2001 and its employees count approximately 30000. Its products are exported to more than 160 countries, and manufactured in 12 foreign countries. It is a front runner of Chinese multinational enterprises. The company is ranked the 9th in the world in the home electric appliance industry. (*Appliance Manufacturer*, Feb. 2001)

Haier has been growing at an incredibly high rate of 80% annually for the last nearly ten years since its start in 1991. Its size in terms of sales is already getting close to that of advanced counterparts of American, European, Japanese and Korean consumer electronics giants. Haier has become one of the world's leading companies in the industry in ten to fifteen years. Its high growth may well be characterized as compressed growth. (Ou-Yang, 2002B)

Our analysis shows there are two reasons behind its compressed growth. The first reason is the latecomer advantage. Haier has introduced advanced technology from Western and Japanese companies. The second reason is its management. (Ou-Yang, 2002B)

In the present paper we focus our attention on management of workers at plants and management of engineers who develop new products in R&D organizations.

We explore management of this company by the case study method. Our primary research method is interview. We conducted interviews to twenty five persons of Haier such as executives, managers, engineers and workers (as of October 2002). Among them were Mr. Zhang Ruimin, who was the CEO of Haier Group and Mr. Zhao Zhenzhong, who was the General Manager of Shunde Haier Electric Appliance Co., Ltd.. We collected and examined unpublished company documents such as company handbooks, materials on the bulletin boards in the factories and offices, various records of personnel evaluations, new product development plans and so on. Published materials such as books, academic papers, magazine articles and newspaper items also provided useful information to us.

2. Management of workers

2.1. Shunde Haier Electric Appliance

Shunde Haier Electric Appliance Co., Ltd. is located in Shunde City, Guangdong Province. Shunde City is known as the hometown of Chinese electric home appliance industry. Two gigantic companies of Kelon and Midea have their head quarters in Shude City. There are literally thousands of assembling companies and parts manufactures in this region. Shunde Haier is a washing machine manufacturing subsidiary of the Haier Group. The number of its total employees is 425 and workers 368 (as of 2001).

In 1997 Aide Washing Machine Company which was a village-town company faced bankruptcy and was acquired by Haier. Haier introduced its management method in the company and quickly transformed it into a profitable company. Let us see the new management method applied to workers in this company. (note 1)

2.2. SST wage

Ms Liu Aixing is a worker who attaches covers on the inside containers of washing machines. Piece rate of her job is 0.031955 Rmb.. Her daily Suochou wage (S1 wage) is the number of rightly done jobs multiplied by the piece rate (0.031955). She receives her daily wages once a month. In July 2001 her monthly S1 wage was 1421.63 Rmb.. As production is done on the conveyer line, the number of jobs done by workers is the same for all workers on the line. The only difference is the number of rightly done jobs since the number of defective jobs may be different among workers.

When Ms Liu finds defects in the jobs of the front worker, she is rewarded the Suopei wage (S2 wage). The rate of S2 wage is 10 times of the piece rate of the job. She found six defects in July 2001. The piece rate of the job of the front worker is 0.032. Thus, her S2 wage in July 2001 was 1.92 Rmb..

When she fails to find defective jobs of her front worker, she receives penalty for it. Also, penalty is given to her when her jobs have defects. Her penalty or Tiaozha wage (T wage) in July 2001 was 1.60 Rmb..

Her monthly wage in July 2001 was 1421.95 (1421.63 + 1.92 - 1.60) Rmb..

The wage system of workers is called SST wage system. It is practiced not only at Shunde Haier but also at other companies in the Haier Group. SST wage may be divided into two parts. The first part is S1 wage. It is based on piece rate wage. Its purpose is to increase production. The more jobs done, the more wages paid. The second part is S2 wage and T wage. It is composed of rewards and penalties. Its function is to decrease defective jobs on the assembling lines.

In the past there was a problem of conspiracy among workers. Workers intentionally

overlooked defective jobs of the workers who were in front of them on the assembling lines. In exchange, their defective jobs were overlooked by the next workers. The conspiracy is now avoided by checks of inspectors. Inspectors check workers jobs. When they find defects, those workers who are responsible for the defects must pay penalty.

2.3. OEC management

OEC management is practiced at Haier. OEC is the abbreviation of "Overall Every Control and Clear." The philosophy of OEC management is as follows. "Let us solve problems immediately. Let us search causes of problems and find solutions one by one. Do not postpone problem solving." In 1995 Haier's OEC management was awarded the National Management Innovation Advance Prize of China Enterprise Confederation. OEC management has attracted large attention in the Chinese business world and seen as one of the key factors of Haier's success. Let us see how OEC management is practiced to workers at Shunde Haier.

After office hours workers check seven items of their jobs, that is, (1) job quantity (how many jobs are done), (2) defects in the jobs, (3) usage of parts and materials, (4) condition of jigs, (5) safety, (6) work attitudes and (7) work discipline. And they fill up the 3E card. 3E is the abbreviation of "Everyone, Everything and Everyday." After workers fill up the 3E card, they clean their work places. And they go home.

Managers collect the 3E cards and check them. And they calculate wages of workers and show them on the bulletin board in the factory. It takes time to do this kind of paper work. So, it is not uncommon that managers work until 8 o'clock in the evening.

Workers are evaluated every day based on the records of the 3E cards. Those with the best records are considered the best workers and those with the worst records are the workers. The workers who are acknowledge as the best workers for consecutive three days have an honorary opportunity to tell their experiences for the workers. The workers who become the best workers most frequently in one month are considered the best workers of the month. They are given a better opportunity to have job training and social benefits. And, the workers who become the workers. They will be fired unless they improve their records of the 3E cards. The other workers are considered good workers. Thus, there are three kinds of workers; the best workers, the good workers and the trial workers. Each worker is represented on the bulletin board with the mark showing the kinds of workers. The best workers have the red mark of smiling faces, the good workers have the green mark of faces and the trial workers have the yellow mark of wry faces.

OEC management is practiced to managers, too.

2.4. Characteristics of management of workers

The management of workers at Shunde Haier described above has the following characteristics.

First, workers are evaluated individually. There is no evaluation of group performance of workers. Teamwork of workers is not evaluated. As a matter of fact, neither small groups nor teams of workers exist in the company.

Second, their wages (including rewards and penalties) are determined by the evaluation which is exclusively focused on results (output) of jobs of workers. The results are basically composed of two parts, that is, the quantity of rightly done jobs and the defects in the jobs. Inputs and processes of jobs such as effort, attitudes, motivation, and team work spirits are only marginally considered in the evaluation. The evaluation of these inputs and processes of their jobs do not directly influence their wages. Age, education and length of service (seniority) of workers do not have any relationship with their wages.

Third, there is no portion of guaranteed or fixed wages in the total wages. The wages are composed of two parts. The first part is the piece rate wage (S1 wage) which is determined on the quantity of jobs rightly done. The second part is rewards and penalties (S2 and T wages) which are determined based on the defects in jobs.

Forth, evaluation is done instantaneously. Evaluation is done when each job is done. Daily evaluation results are shown to workers next day on the bulletin boards in the factory. In the company the phrase, "instantaneous rewards and penalties" is used.

Fifth, evaluation is open. Not only the results of evaluations but also the rules of evaluation are open to workers. Workers know calculation formula of their wages. As a matter of fact, workers fill the evaluation sheet (3E cards) after the work time and hand it over to managers. They themselves calculate their wages every day. When they find different figures in their wages on the bulletin boards, they claim to managers.

Sixth, there is no room for discretionary evaluation by the management. Workers' evaluation and wages are arithmetically determined by evaluation rules. Foremen, middle managers, and managers in the personnel department have practically no power to influence the evaluation of workers.

Lastly, let us add one more characteristic which is not mentioned in the last section of this paper. The company has open competitive bidding system for job assignment. When workers think some particular job is unreasonably attractive (e.g. its piece rate is too high or it is too easy), they can bid for that job. Competitive bidding by workers will reduce the extent of attractiveness of that job to the par level of other jobs. When some jobs become vacant, the competitive bidding is applied. Assignment to the vacant jobs is not determined by the management.

3. Engineers of new product development

3.1. Organization of new product development

China has become famous as the center of production of the wold. And it is commonly understood that Chinese companies, whether they are genuinely local companies or foreign affiliated companies, are production organizations. But these days there are some Chinese companies that not only manufacture products but also develop new products themselves. Haier is one of these companies.

Haier has some 3000 engineers. They count nearly 10% of the total employees. They work at one of the following three level organizations of R&D. The top level is the central laboratory which has about 300 engineers. The second level organization is the technology development centers. There are eleven centers and one experiment room. The third level is the new product development centers which belong to seven product divisions. The company has 14 development centers. In the present paper we focus on the new product development center of the information product division. The center develops color TV sets.

Haier has several affiliated R&D companies in which Haier has some ownership ranging from 100% to minority ownership. These affiliated R&D companies have about 2000 R&D employees. Thus, the total number of R&D employees of Haier amounts to 5000. (note 2)

In 1998 Haier developed 262 new products and launched 236 new products in the market. Its sales was 12 billion Rmb.. And the sales from the new products launched in the market in that year amounted to 74% of the total sales. The company has the goal that the sales of new products amount to more than 70% of the total sales. According to the definition by the company, new products are those products that are less than one year old after introduced in the market. This definition is very rigid. In the case of Japanese companies new products usually represent the products that are equal to or less than three years old. And the goal of 70% is also high. Haier has been successful in meeting this ambitious goal for the last several years.

3.2. Call for project managers

Development Support Department announces requirements or specifics of new products to be developed. The requirements include such items as technological performance, price (cost), period of development, expected sales of products. Engineers who want to become the heads of new product development projects bid for the position with new product development plans. The product development plans are evaluated by a review committee. The members of the review committee are managers of two departments, that is, the development support department and the development

planning department. If his plan is accepted, he is appointed the head (called project manager) of the new product development project.

In April 2001 Development Support Department of Information Product Division announced the following result of a market research and the requirements of new color TV sets to be developed. The color TV sets (RGBTV-29FA and RGBTV-29TA) of Haier has not been well received in the market. Sales persons in Beijing, Wuhan, and Jinan complained high prices compared with the products of competitors. The 29 inch color TV sets of Konka and Changhong sold well since their prices were 3000 Rmb. that were substantially lower than the prices of 4000-5000 Rmb. of Haier's products. Haier's products had competitive advantages of more attractive appearance and better quality of pictures and sound. But the price differences were too big to attract customers. Thus, it was necessary to develop new color TV sets that were price competitive with competing products while maintaining the competitive advantages of attractive appearance and high quality pictures and sound of the existing products.

Engineers applied for the new product development project (29F8A-T) of the color TV sets. The plan of Mr. Huibo Wang was accepted by the review committee. Mr. Wang became the project manager of the new product development project.

The project managers submit the plan of the new product development and the schedule of new product development. They make the contract of the new product development with Product Support Department. The cover page of the contract of the 29F8A-T project of Mr. Wang had the following descriptions.

Submission to: Product Development Department of Intelligence Co., Ltd. of Qingdao Haier
Submission date: May 8, 2001, Deadline of the project: November 20, 2001
Head of the project: Huibo Wang
Members of the project: Deyue Du, Ping Jiang, Qinghai Jiao, Guoyong Hou
Name of the project: 29F8A-T (color TV set)
Reviewer: Liu Qiang (manager of the Product Development)
Manager of the Product Support Department: Xiaobo Song
Head of engineers in the Information Company: Yili Huo
Division manager: Qunli Sun (head of the Information Product Division)

The plan of the new product development had the following contents.

Reasons of the product design and the criterion of the acceptance of the plan Technological specifics of the product Budget and costs of the new product development Details of the budget and costs of the new product development Features of the new product Requirements of the product design Schedule of the product development

Any engineer can apply for the project manager position.

At Haier "horse races without horse experts (Bai Le, in Chinese)" are practiced. Engineers (horses) are not evaluated by experts (horse experts or Bai Le) of personnel department based on education, degree (bachelor, master or doctor), disciplines (chemistry, physics, mathematics, electronics, etc.), or previous experiences. Engineers are evaluated by the results of their jobs (horse races). When they achieve good results (records of horse races), they get high evaluation and good job assignment.

3.3. Call for project members

The salary of a project manager is determined by the market performance such as market quality of the new product, cost of the new product and sales of the new product (which we will see in the next section of the paper). So, he is naturally responsible (or at least partially responsible) for not only the development of new product, but also for the production and the marketing of the new product. In order to reduce the costs of the new product he is required to pay attention to the purchasing of materials and parts of the product. In order to fulfill his responsibility he needs to recruit project members from various fields of functions including manufacturing, purchasing and marketing. The recruitment is done publicly. In other words, open competitive bidding is applied in the recruitment of project members. Any engineer can apply for the member of new project development project.

The engineer can be a project manager of a certain product development project and a member of other projects at the same time. It is not uncommon that one engineer participates in multiple projects.

The project 29F8A-T had the following four members in addition to the project manager; Mr. Wang. They were Mr. Deyue Du, Mr. Ping Jiang, Mr. Qinghai Jiao, and Mr. Guoyong Huo. There was division of labors as the following.

Mr. Wang: head of the project and circuit design

Mr. Deyue: mechanical design

Mr. Ping: circuit design

Mr. Qinghai: circuit design

Mr. Guoyong: mechanical design

The contract made between the project manager and each of the other members of the project specified the rule of the distribution of the profit (to be more precise, total revenue, as we will see soon) from the new product. In the case of the project 29F8A-T the project manager received 35% of the profit, Mr. Deyue 15%, Mr. Ping 18%, Mr. Qinghai 17% and Mr. Guoyong 15% respectively.

4. Market salary of engineers

4.1. Market salary

We mentioned several points which characterize the management of workers at Shunde Haier. The management of new product development engineers shares most of these characteristics. However, there is one important difference. It is the direct relationship between the salary of engineers and the market performance of the new product. Performance of the new product in the market determines salary and evaluation of engineers.

In the case of workers, their wages (including reward and punishment) do not have any relationship with market performance such as sales, product quality problems and profits. On the other hand, the salary of engineers is determined by the market performance of the new products that they develope. Thus, we may say that market economy principles are more thoroughly applied to engineers than to workers. Let us see in some detail how the salary of engineers is determined by the market performance of the new products.

Profit of the new product is calculated by the following formula (1).

(1) Profit = (cost of new product – cost of parts \div 0.75)×(sales – minimum sales)

The cost of a new product is the transfer price from manufacturing department to sales department. The cost of parts is the price at which purchasing department procures the parts from suppliers. To compensate for various costs of the purchasing department the manufacturing department buys (transfer) parts from the purchasing department at the price of (cost of parts÷0.75). In order to make profit from the new product, they need to sell more than certain numbers of product. This minimum numbers multiplying the price of the product is the minimum sales.

The salary of project manager is determined not by the profit, but by the total revenue of a new product. The total revenue is the profit multiplying a certain ratio as it is shown in formula (2). The ratio is calculated by the formula (3).

(2) Total revenue = profit \times ratio

(3) The ratio = standard ratio×(1+ (actual profitability – target profitability)÷target profitability×1.5)

The salary of project managers and other project members are determined by the total revenue of the project. Usually, project managers receive 20-30% of the total revenue and project members receive remaining 80-70%. At Haier the salary of engineers is called "market salary."

Let us see the case of a new product, a color TV set 29F8A-T.

The sales department purchases this product at the price of 2610 Rmb. from the manufacturing department. Thus, the cost of the new product is 2610 Rmb.. The purchasing department purchases parts at the price of 1470.5 per product and sells (transfer) the parts to the manufacturing department at the price of 1960.67 (1470.5 \div 0.75).

The minimum numbers of product that must be sold is 240. The actual numbers of the product sold on May 1, 2002 (more accurately, numbers of products sold for the 24 hours between 14:00 on April 30 and 14:00 on May 1) was 340. This sales data is provided at 16:00 every day by the sales department.

The profit of 29F8A-T is 64933 Rmb. as it is calculated as follows.

Profit=(2610 - 1470.5÷0.75)×(340 - 240)

As it was mentioned earlier, the total revenue of the new product, 29F8A-T is the profit multiplying the ratio. The ratio of this new product is calculated as follows.

Ratio= $0.6 \times (1 + (0.12 - 0.10) \div 0.10 \times 1.5)$ =0.78

Then we can get the total revenue of this new product as follows.

Total revenue=64933×0.78 =506.48

In the case of the product 29F8A-T the project manager received 35% of the total revenue and the other members received the remaining 65%. As the total revenue of May 1, 2001 was 506.48 Rmb., the daily salary of the project manager, Mr. Wang, was 177.268 ($506.48 \times .35$) Rmb. on May 1, 2001. The salary of engineers is calculated

every day. Engineers receive their salary once a month.

As the salary of project managers and other project members is directly linked with sales and costs of the new products developed by them, they naturally try to increase sales and decrease costs. In order to increase sales they pay attention to the attractiveness of products in the market. They even try to design sales promotion campaign for the products. They are required to be sensitive to market conditions and customer demands. In order to decrease costs of products they try to find good suppliers so that they can purchase parts and materials which are cheap in price and good in quality. They also practice design-in in which suppliers are involved in the design activities of new product development at an early stage. An assembling company and parts suppliers jointly make effort to develop products at low costs.

4.2. Evaluation of engineers

Engineers involved in the development of new products are evaluated everyday based on the market performance of new products. The results of weekly evaluation are shown on the bulletin board of the office of the new product development centers.

The evaluation is done regarding the following three points; product quality, cost of products and sales of products. The product quality is evaluated regarding two items; the numbers of repaired products and the numbers of exchanged products which are done by the request of customers. The data of these two items are collected on the daily basis by the product quality improvement room. The data of sales of the product is provided by the sales department on the daily basis.

The project managers receive reward or penalty based on the evaluation. The project managers who have good scores receive reward of 50-200 Rmb.. Those with poor ranking receive penalty of 50-200 Rmb..

5. Why new Chinese management works.

5.1. Supporting current situations

The management of workers and engineers at Haier may be characterized as the management of "a carrot and a whip." We may see some similarity between Haier's management of workers and Taylor's scientific management in the early days of capitalism in USA. Taylor's scientific management encountered severe opposition of laborers and labor unions and thus was not so successful. Haier's management has been well received by workers. Haier's management has also been well received by product development engineers. It is considered as one of the key success factors of Haier. Why does Haier's management work?

Two reasons can be pointed out.

First, Haier's management is welcomed by Chinese people who have long been suppressed by the old management of socialism. In the period of centrally planned economy of socialism, management at national enterprises had the following characteristics.

Employment was guaranteed.

Wages and salary were not related with their performance.

Wages, wage increase, job assignment and promotion were not determined by open rules.

Nepotism widely existed. Those employees who had good relationships with managers at higher positions, or connections with communist party and regional relationships were able to expect favorable treatment.

Under the old management of socialism there was practically no achievement motivation, innovative capabilities and competitive attitudes of employees from the top to the bottom. The workers and the engineers are now given opportunities to display their motivation, innovative and competitive attitudes and capabilities of such kinds under Haier's management. Haier's management is in contrast to the old management of socialism. The management at Haier may well be called the new Chinese style management. It is our view that the new management is well received by many who were almost choked under the old management of centrally planned economy.

The second point is the fear of unemployment. The new management is severe, but workers do not escape from it. Their employment opportunity is limited. It is practically impossible to find other employers. Most of workers at Shunde Electric are young female workers who came from remote rural areas. Their families depend on their wages. After some period of time (normally three years), they return to their home with money they saved. The money is enormous amount in terms of rural economy standard. It is often told that a house can be built by the money the girls earn. In rural areas there are practically no opportunities for employment. Thus, workers never quit the company. They endure severe work conditions. They welcome competitive evaluation system and wage system. The harder they work, the more they can earn.

Employment situation of engineers is better than that of ordinary workers. Thus the second point may not be so much important as in the case of workers.

5.2. Chinese cultural tradition

Is the new Chinese management at Haier based on Chinese cultural tradition or not? Importance of "face" (to save face or to lose face) and human relationship are often pointed as characteristics of Chinese cultural tradition. (Sonoda, 2001) Haier's management seems to challenge the two characteristics.

The results of the evaluation of workers and engineers are shown with individual names. It seems to us that workers and engineers of poor results lose their faces. This practice seems to contradict with the Chinese cultural tradition.

As we previously mentioned in this paper, the evaluation is determined by some rules. Their superiors and managers in the personnel department can not influence evaluation. There is no room for discretionary evaluation by them. Thus, we may say that the new management contradicts with the cultural tradition of China which emphasizes human relationship.

None of family member of Mr. Zhang Ruimin, who is the de fact founder and the CEO of the Haier Group is not employed in the Haier Group. At Shunde Washing Machine Company no family member of Mr. Zhao Zhenzhong, who is the general manager of this company, is working. These facts are supporting evidences of anti nepotism of Haier's management.

On the other hand, we may argue in the opposite way. The new Chinese management is based on the Chinese cultural tradition. States, provinces, cities, villages, families and individuals had a long history of severe competition. Competition is an important cultural tradition in China. Competition is an essential factor in Haire's management.

Another important characteristic of Chinese tradition is the development of commerce. (Hara, 2000) Merchants played important roles in Chinese society for a long time. Before the industrial revolution in eighteenth and nineteenth centuries, China was probably one of the centers of the world trade. This gave the Chinese people economy oriented thinking (money oriented thinking), materialistic thinking (not abstract thinking or metaphysics), the tradition of competitiveness and individual aspiration.

The management practiced at Haier may be described by such words and phrases as money, rewards, penalties, individuals, competition, openness, quantitative approach, instantaneous evaluation, competitive bidding, arithmetical evaluation rules, anti nepotism. These key words and phrases are compatible with the cultural tradition of the long history of competition and development of commerce in China.

When we pay attention to these characteristics of cultural tradition of China, we easily see that the new management has the background of Chinese cultural tradition.

Overseas Chinese in Southeast Asia is also interesting in pursuing this research theme. Chinese have been playing a central role in the economy of Southeast Asian countries like Taiwan, Hong-Kong, Singapore, Malaysia, Thailand, and Indonesia. We may say that Chinese in main land China have begun to demonstrate their capabilities under the open market economy of China. Chinese in Southeast Asian countries and in main land China are the same people. They share the common cultural tradition of China. The difference between the main land China and the Southeast Asian countries was the macro economy system. Now, the main land China and the Southeast Asian countries share the same market economy system. Then, we may well expect that Chinese in main land China have begun to behave in a similar way as Chinese in Southeast Asian countries. Overseas Chinese in Asia are well known for their aptitude for commerce and industry, entrepreneurship, high achievement aspiration, pro competition attitude, money oriented thinking, and materialism.

6. Comparison with Japanese and American management

6.1. Japanese management and Chinese management

By comparing Japanese management with Chinese management at Haier it is revealed that these two management styles are totally different. We may say that Chinese management is almost an opposite of Japanese management as we see below.

We pointed nine characteristics of Haier's management. Japanese management has the opposite characteristics as follows.

First, Japanese companies put emphasis on team work or group performance. Japanese management has been characterized as group oriented management. Japanese companies encourage group performance rather than performance of individuals. A person with ability is expected to show his ability through good group performance. To stand out individually is often regarded unfavorable since it has bad influence on team work. We have the common saying that "he who stands out gets picked upon."

Second, the results of one's performance as well as the inputs and the processes of his jobs are evaluated. In Japanese companies effort, attitudes such as team-work sprit and cooperation, discipline and loyalty to companies are also evaluated.

Third, rules, processes and the results of evaluation are only partially opened. Workers and engineers have limited information of evaluation system and its application. In Japanese companies personnel departments have strong voices in the evaluation of managers, engineers, professionals and ordinary employees.

Fourth, competitive bidding system is rare in Japanese companies. Employees submit their requests on a job assignment. Personnel department consider their requests and determine a job assignment. If employees do not want to accept the job assignment, they can claim to them. But this kind of acts sometimes has negative effects in their careers in the company. Rejecting a job assignment practically means to lose any hope for promotion in the company in the future.

Fifth, qualitative approach is also important besides quantitative approach in

Japanese companies. Attitudes, effort, discipline and loyalty to companies are evaluated.

Sixth, managers and personnel department have discretionary power in evaluation. Wages and salary are not arithmetically determined by the formula of market mechanism as at Haier.

Seventh, non-monetary reward and punishment have some significance in addition to monetary reward and punishment in Japanese companies. Reward is often nominal in terms of amount of money. Those engineers who develop excellent technology or new products successfully are only moderately rewarded in terms of money. Non-monetary rewards like the award by the president, admiration by the employees are also important.

Eighth, mid-long term evaluation is more common than instantaneous evaluation in Japanese companies. As Japanese management is often described as the management of seniority or long-term service, pay increase and promotion is a gradual process which takes time. It is a common practice that salary of employees differs only a little for several to ten years since the start of their career in the company.

Ninth, wage of workers and salary of engineers are basically fixed. Piece rate wages and salary are applied to exceptional people such as some sales persons and financial experts like dealers.

Tenth, wages and salary, and also posts are stable in Japanese companies. Demotion of engineers and managers are rare. On the contrary at Haier demotion is regularly practiced. The company has the policy of "regular demotion of fixed rate of inferior persons." The persons in the worst 5% range are demoted automatically every year. When the company lays off workers, it first lays off workers who belong to the inferior category, "trial workers."

It may be worth-while to mention that at Haier practically all employees are contract employees. Even managers and engineers are mostly contract employees. The period of contract is between one year and five years. The period of contract of workers is usually three years. Most of them are young female workers from rural areas and they return to their villages after the contract period. They do not extend the contract period. There are many engineers whose contract is one year.

On the whole, Japanese management is only marginally based on the market principles of economics. We may say that Japanese management is more based on the theories of psychology and sociology.

During our interview we had episodes that show the difference between the new Chinese management and Japanese management. Some Chinese managers and graduate students told us an interesting story. "Japanese companies in China are like Chinese state owned enterprises. Haier and other growing Chinese companies are more capitalistic than Japanese firms." This kind of opinion is widely found among Chinese young people. (Kuroda, 2001)

Let us add one more episode. Chinese graduate students, scholars and businessmen living in Japan think that Japanese elementary schools are not good for their sons or daughters. Japanese schools are too easy going for Chinese pupils. Homework is small in amount and competition among pupils is very limited. Chinese children who are educated in Japanese schools will have difficulties in adjusting to competitive Chinese life.

6.2. Comparison with American Management

Management of workers in American companies is different from that at Haier. Wages of American workers are not piece rate wages. Wages are fixed. When workers are laid off, workers with less seniority are the first to be laid off. Seniority system works. Their wages, job assignment and promotion are not so much influenced by the evaluation of their jobs. At Haier the worst 5% persons (managers, engineers and professionals) are automatically demoted. When the company fire workers, it fires in the order of evaluation records. There is no seniority system in the company. Age, sex, education and period of service in the company do not have any meaning in determining their wages and salary. We may say that pure merit system exists in the company.

In American companies stock option is popular among top management. In some companies it is open to ordinary employees. The stock option is practiced among top management at Haier Group. Haier Group itself is not a listed company, but one of its subsidiary companies, Qingdao Refrigerator Company, is listed at Shanghai Stock Market. Its stock is used for the stock option.

American style of management represents the management based on market principles of economics. It has become a common understanding that Chinese management is more similar to American Management than to Japanese management. (Kuroda, 2001) We share this understanding. We want to go farther than this argument. Our examination of Haier's management in this paper reveals that market principles of economics is more thoroughly applied in Haier's management than American style of management. We may say that Haier is more capitalistic than American companies.

7. Conclusion and future research tasks

7.1. Market economy model of management

Wages of workers are determined in the fictitious market of the factory at Shunde Haier just like the prices of goods and services are determined in the real market. Salary of engineers who develop new products at Haier is determined by the market performance (profits) of the new products. Evaluation of workers and engineers is individualistic, instantaneous, quantitative, monetary, results-oriented, competitive and open. Management of workers and engineers at Haier may well be characterized as straightforward application of market principles of economics.

Thus, we want to summarize our analysis by saying that management at Haier is the market economy model of management.

7.2. Future research tasks

There are many research tasks to be done in the future. The followings seem important.

First, it is necessary to broaden research subjects. In the present paper we only treated workers at a factory and engineers of new product development. Top management and managers in charge of corporate staff jobs are our next targets.

Second, problematic or dysfunctional aspect of Haier style management need to be analysed. We don not treat the dark aspect of newly born Chinese management that is based on economic market principles. At the present time the new Chinese management works well at Haier. But there must be problems and limits. Will the Haier's management last for long?

Third, spread of Haier's management among Chinese companies also is an important research topic.

Notes

- 1. Our description of SST wage and OEC management is based on our earlier work. (Ou-Yang, 2002 A)
- Based on the OHP sheets prepared by Lee, Chun-li, who is Associate Professor of Aichigakuin University, for the presentation at the 9th Annual Meeting of the Japan Academy of International Business Studies (JAIBS), held at Kobe University of Commerce on 13 October 2002.

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