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JAPANESE MANUFACTURERS WITHOUT FACTORIES*

Sony announced on 18 October, 2000 that she will sell two plant, Sony Nakasinnden(Miyagi-ken, 1300 workers) and Sony Industries Taiwan, (Takao, 750 workers) to Solectron so that Sony headquarter could concentrate on business planning and product development. This strategy is on the same line of the establishment of a new company named EMCS (Engineering ,Manufacturing and Customer Service Corporation) which was officially explained this Spring. This new strategy of a leading Japanese manufacturer indicates separation of manufacturing from product development and a new direction of manufacturing without factory.

About 40days after, on 30 November 2000, Matsushita also announced that she will change the traditional business model of divisionalized organization based on product group and give more autonomy to each plants. In her middle term plan 2001-2004, she intends to integrate 30 plants among 240 domestic and abroad and separates production departments from sales departments.

What does this new movement of Japanese leading manufacturers mean to the Japanese production system, which was highly appreciated in the world business? Does it mean that Japanese manufacturers gave up to manufac-ture good-quality product at low price? Why do they separate production process from sales or marketing? Does this mean that Japanese manufacturers will loose the excellent known-how of manufacturing which supported competitive advantages of Japanese companies in the world market? Are Sony and Matsushita exceptional to Japanese manufacturers? What will be future trends of Japanese manufacturing? These are the questions, which the author intends to address in this paper based on four case studies.

A CASE OF SONY

Business conditions of recent Sony

Sony has six main business segments such as electronics, game, music, picture, insurance and others. The percentage of these business segment in sales and operating revenue is following; electronics: 64%, game: 9%, music: 10%, picture: 7%, insurance: 5%, the other: 5%. On the other side the percentage of operating income is following; electronics: 42%, game: 27%, music: 10%, picture: 14%, insurance: 7%, the other: 0%. Therefore, investment effectiveness is not so good in electronics segment.

Operating margin in electronics went down from 6.8% in 1998 to 2.8% in 1999 and 2.5% in 2000. At the same time the amount of sales reached the max around 5 trillion yen in 1998 and did not go up after that

On the other hand, operating margin of picture business went up from 5.7% in 1998 to 7.9% in 1999 and 7.8% in 2000, although sales amount went down from around 600 billion yen to around 500 billion yen in 2000.

Sony had to improve the efficacy of some business segment, especially electronics segment.

Foundation of EMCS

In 1980s and 1990s, Sony adopted in-house company system so that they could quickly and flexibly adapt to turbulent market. In-house companies within company include planning, product development, manufacturing and sales functions on the base of product groups. However, this business model did not work well in electronics industry. The market changes quickly and requests speed-up of product development.

Under this in-house company system, the company can not flexibly move its resources to adapt to new business.

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To strengthen the efficiency of production as a whole, Sony present the idea of EMCS (Engineering, Manufacturing and Customer Services) which engages in engineering, manufacturing and services relating to the products. The EMCS will take the responsibility of producing video, acoustics, personal computer, and semiconductor from spring 2001. The original parts of Sony will engage in business planning and product development so that they can develop many products quickly. The EMCS can produce any products requested by any companies other than Sony. Therefore, the EMCS concentrates on production process and services relating to their products. On the other side, original parts of Sony can concentrate on designing and developing new products. This division of labor within Sony group will intensify the efficiency of production as a whole.

Merits of EMCS

1. Concentration of in-house company on business planning and product development
2. Speed-up and flexibility of products development
3. Risk-hedge of facility-investment to specific group of products
4. Easy shift of strategy from diversified production to solution business like pictures and net business
5. Intensive use of facilities and talents of the plants

Roles of Solectron

On the same strategy of EMCS, Sony sold two plants producing car electronics and radio and walkman which are low added-value products. However, Solectron found out many merits of buying these plants.

First, these plants have very high level of technology in a specific field

Second, these plants can produce many electronics products for other companies than Sony.

Third, these plants can be a base for Asian market in high added-value products like movable telephone.

Fourth, these plants have many talented engineers and skilled workers who can compete in the world market.

CEO of Solectron, Mr. Nisimura told that they learned from Japan most of the know-how of good production system of Japanese manufacturing in 1980s and 1990s. Now they can produce high quality product and deliver quickly to any place on the world. This business system is fundamentally different from "Shitauke" in the traditional Japanese industry, he added.

Solectron grows rapidly in the last three decades and provides a new business model of OEM. She will operate as an important partner of Sony in manufacturing.

A CASE OF MATSUSHITA

Recent trends of sales and profit of Matsushita

Matsushita also have three groups of products; consumer products like video and audio equipment, home appliances and household equipment, industrial products like information and communication equipment, robots, air-conditioning equipment and car audio, components like semiconductors, printed circuit boards and battery. The shares of these categories of products among total sales in 2000 are; video and audio equipment: 23%, home appliance and household equipment: 18%, information and communication equipment: 28%, industrial equipment: 10%, components: 21%.

Total amount of sales reached the top of 7,890,662 million yen in 1998, but went down to 7,299,387 million yen in 2000,which is partly caused by the decrease of foreign market.

Operating profit also reached 373,901 million yen in 1997, but went down drastically to 193,684 million yen in 1999 and 159,054 million yen in 2000 due to intensified global price declines, the appreciation of the yen, and increases in fixed costs including R&D expenditures. These trends of sales and operating profit of Matsushita resemble to those of Sony.

Middle-term plan 2001-2004

The middle-term plan announced November 30, 2000 indicates fundamental changes of business model based on the tight integration of production with sales among products groups.

First, the new business model gives more autonomy to each plant. Each plant will be independent from their headquarter of Matsushita and be able to produce their products to any company other than Matsushita.

Second, the sales departments of each divisionalized business organization will be integrated into both National Marketing Center and Panasonic Marketing Center. These marketing centers will concentrate in the sales of their own commodities regardless the plants, which manufactured these commodities.

Third, Matsushita will integrate and restructure thirty plants to increase the efficiency of production in term of cost.

This new direction also emphasizes the separation of manufacturing from product development and sales. However, Matsushita does not intend to sell any plant with employees to other companies. She will keep her manufacturing parts within the group.

A CASE OF MISUMI

A concept of market-in and product-in

Misumi started her business as a trading company of press die components. Now she attracts many interests both of practitioners and researchers because she grows quickly even under difficult market conditions in 1990s and with medium-sized employees of 230. She provided a new business model even for manufacturers.

Conventional business model would be " market-out" type where manufacturers ask sales agents to sell their products. But Misumi introduced a new idea of "market-out" type where sales agents change into purchasing agents who recognize the needs of customers and request manufacturers to produce these commodities.

Some characteristics of the business model

To succeed as a purchasing agent, Misumi developed new devices as following;

First, she developed big size of catalogue for selling industrial parts such as press die components, plastic mold components and automated machinery-related components to each engineer of many companies.

Second, she organized many manufacturers to supply even a small number of parts so that she can satisfy any requests from customers.

Third, she established a high reputation of high quality of product with lower price than competitors and of keeping rigid delivery time even under difficult conditions.

Now she engages mainly in planning business and designing industrial products. She does not have any factories, but is recognized an excellent manufacturer in industrial parts. She uses information technology to connect many customers and manufacturers.

Due to her high performance, she plans to extend her business to new market like medical, food and visual media market with the same business model as industrial parts.

A CASE OF PEOPLE

People was founded as a toy manufacturing and sales company in 1977 by Chizuko Iwabuchi. She also rapidly increased sales in the last decade. She produces a series of toys, which stimulate intelligence of children at the age of one, two and three. People also does not have any factories, although she is classified in toy manufacturer.

Business model

First, People engages only in designing toys and deciding volume of production. These activities of designing and sales are conducted by a so-called "crew", a small group of employees responsible for a specific series of toy.

Second, the whole production process is outsourced to other manufacturers. The crew chooses the best manufacturer suitable for each series of toy. The company does not have fixed relations with a specific manufacturer.

Third, She tries to minimize the gap between production and sales by rigid estimation of demands for each toy with the last sales data accumulated. The small company of 35 employees can not accept much volume of products unsold.

Fourth, She does not use any sales persons for wholesales. She assembles wholesalers in summer to explain the estimated sales volume at the high time of year-end period.

Judging form these characteristics of business model, People concentrates on business planning and product development by outsourcing manufacturing. People is a good example for showing the possibility of manufacturer outsourcing production process.

"FABLESS" STRATEGY OF JAPANESE MANUFACTURERS

This new direction of production system in Japanese manufacturers is named "Fabless" strategy in Japan.

The fabless strategy can be classified into two categories. The first type is a company like Matsushita who separates production process from business planning and product development within the consolidated companies. The factories can enjoy more autonomy in the relation with other companies and provides good service of maintenance of their products.

The second type is a company like Misumi who engages only in business planning and product development. She organizes many manufacturers for producing a specific group of products, which are quite independent from Misumi. She outsources the whole process of production to independent manufacturers and does not have any facilities and know-how of production.

The fabless strategy has some merit in manufacturing many products.

First, the headquarters of the company can concentrate on business planning and product development and speed up this process of manufacturing as a whole. They can reach for the economy of speed in manufacturing new products.

Second, the company can hedge the risk of big capital investment in factory facilities producing a specific product. She can quickly change their products without thinking the fixed capital for factories. She can easily transfer management resources to new products or new business.

Third, The factories independent from their headquarters can utilize more effectively the existing facilities and talented workforce regardless "Keiretsu" and products requested. The factories can concentrate only on producing many kinds of products.

Fourth, the factories can provide better service of maintaining and using the products than the former plants, because they have more knowledge about their products than the sales departments. The factories themselves can directly contact the customers of their products and improve their products within the same line of development.

The number of these companies following the fabless strategy seems small at this moment in Japan. However, so long as the leading companies like Sony and Matsushita apply the new strategy, some other companies especially in very competitive and turbulent market will follow that strategy.

The fabless strategy does not necessarily mean that the manufacturing companies will loose the important know-how of production, because the factories remain in the consolidated group of the companies. They can accumulate the knowledge of manufacturing itself by concentrating that process only.

Whether this new trend can be followed by manufacturers in foreign countries is open question.

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