Internationalization of toyota motor co. assignment

In 1998, Toyota, the number three carmaker in the world, sold 1, 711 thousand vehicles in Japan through 309 dealers, and 2, 930 thousand overseas through 170 distributors deploying about 5, 400 outlets in 73 countries. So, Toyota’s sales network was already fairly globalized, the markets in the East European countries surely being fallow lands yet. As for its overseas production, Toyota had 40 companies among which 27 firms in 24 countries assembled 1, 468 thousand vehicles, whereas Toyota produced in Japan 3, 166 thousand of which 1, 463 thousand were exported.

Then, Toyota seems being on the way to globalize its production network at the end of 20th century. However, Toyota’s globalization of production came lately. If in general the internationalization proceeds pass through four phases: export strategy, strategic alliances and shareholding investments, foreign direct investments, and globalization, the internationalization trajectory of Toyota rather shows in its basic trend the classical process, analyzed by studies on multinational firms during the 1970s and the 1980s.

The successful export strategy of the firm had encountered protectionist policies, set by the importing countries for some reasons — growing trade deficits, devastating local firms, etc. — so that it decided to produce there to avoid protectionist barriers — quota, prohibitive import taxes, etc. The fact that its overseas production essentially began to replace exports from 1985 apparently shows that its internationalization strategy changed form export centered strategy to localization of production during the first half of the 1980s. . General Tendency Toyota Motor Sales (TMS) began exporting in 1952, just after being separated from Toyota Motor Corporation (TMC) because of the financial crisis of this latter, by receiving sporadic orders from

some peripheral countries such as Brazil. The real take-off of its exports was marked during the second half of the 1960s. From then to 1985, its exports had a tendency to expand, being accelerated in the period between two oil crises and interrupted by short sluggish terms as those in 1973, 1978-1979, and 1981-1984.

Despite these sluggish terms, Toyota’s production continued to expand with twin engines until 1985, the growing domestic market and the increase in its exports especially toward the North America. This tendency was reversed from then, because of the increase in overseas production, especially that of its transplants in the USA, though its production in Japan continued to grow until 1990 thanks for an economic boom fuelled by a “ financial bubble” during 1987-1990. Toyota’s overseas production rapidly increased from 136. 3 thousand units in 1985 to 1, 467. thousand in 1998. Of course, this inversion of export trend does not mean the decrease of overseas sales. In fact, the latter continued to grow from 2, 107 thousand vehicles in 1989 to 2, 930 thousand in 1998. Even the fall of the sales by half in the Southeast Asia in 1998 with respect to the previous year because of the economic crisis of the ASEAN countries was compensated for by the increase in sales in the North America and Europe and had no substantial effect on its overseas sales. This fact shows the importance of the North American markets for Toyota.

It is then obvious that the North American markets have an overwhelming weight in Toyota’s globalization strategy. So, it is natural that Toyota established its global strategy mainly taking account of American political and industrial situations. This overview of the movement of Toyota’s exports

and overseas production then clearly shows two phases Toyota experienced in its globalization trajectory: the first can be characterized by an export-centered phase and the second, by localization phase of production that began to replace exports since 1985.

In other words, Toyota’s international strategy has shifted from a globalization of marketing to that of production during the 1980s. In fact, its localization rate, i. e. the rate of overseas production with respect to overseas sales, has been continuously increasing from about 22% in 1989 to over 50% in 1998. By examining Toyota’s globalization trajectory and strategies in the next two sections, we will see the circumstances that compelled Toyota to do such a change in its global strategy. 2. Era of the Export-Centered Strategy: 1951-1980

Having a conviction that, exports should be necessary to develop a mass production, TMS set up an Export Department with which TMC was going to cooperate by assigning small export staff just after its foundation in 1950. TMS tried to export Toyota’s commercial vehicles, mainly the Land Cruiser (four wheel drive) since 1954, toward the niche markets or market segments where advanced Western carmakers had not still their strong presence. Already having met some countries that had prohibited the import of completely build-up vehicles, TMS was obliged to export KD sets to be assembled in these countries.

But, in fact, KD assembly of the Crown in Mexico, started in 1960, was a complete failure, because of a bad preparation of KD sets and finally because Toyota’s local partner was arrested for the sake of political affaires.

Toyota itself says about this period: « in a sense, TMS began exporting almost blindfold » Lessons learned from the experiences in Mexico and others were the « importance of properly preparing its knockdown system and also of selecting local partners » In Korea, Shin Jin Motor had been assembling around 20 thousand of Toyota’s CKD from 1969, but this company chose GM as its partner in 1972 to found a joint venture.

In Taiwan, as the government restricted the import of vehicles, production cooperation began between Toyota and Lu Ho AIC. However the latter was finally controlled by Ford in 1973 after failure in negotiation between Toyota and Lu Ho under changing political situations. In addition, there was a quality problem: the vehicles exported were not suitable to local conditions. Recognizing the too low quality of the Crown exported, TMS completely stopped its exports toward the USA for four years in 1960.

This severe failure and following studies allowed Toyota to develop passenger cars with quality, the 1964 model of Corona and the 1968 model of Corolla, acceptable and marketable in American market and others major markets. Toyota also revised its exports system: TMS established Export Headquarters in 1962, whereas TMC set up its Export Department in 1963. These models adapted to local conditions for their exports had contributed to the expansion of Toyota’s overseas sales. So, Toyota arrived to penetrate into European markets, where it had been feeling difficulty to enter.

In Europe, Toyota’s marketing strategy has been in having one distributor in each country. If we see Toyota’s product strategy in this decade, we could say that Toyota kept its niche market strategy — the Corona for the segment

between the Beetle and American compact cars, for example — even in the industrialized countries, by creating or organizing sales and after-sales networks. But the scene would change. The North America has constituted Toyota’s prime overseas market since 1968, which absorbed over half of its exports from 1970 to the end of 1980s.

Europe has become Toyota’s second overseas market since 1972 and came to import over 300 thousand units in 1980. Then followed the Middle East Asia, which imported about 280 thousand units in 1980 against 15 thousand in 1969. Here, we have to notice that the US market then has become the biggest and sine qua none overseas market for Toyota, which would then determine its policy about overseas operations during the 1980s and 1990s. Coping with issues of security and pollution at the beginning of the 1970s and the first oil crisis, Japanese carmakers arrived to produce the vehicles that consumed less energy with high quality and low price.

Relying upon its Toyota production system (TPS), Toyota’s management had been thinking that exports were more profitable than localized production because overseas production operations could not run as well as those at its domestic assembly plants. In fact, just-in-time supply system of parts coupled with “ Jido-ka” (making autonomous) of machines and production lines was based on an intensive regional division of labor between Toyota and its major suppliers in and around Toyota City. Kaizen (continuous improvement) managed and promoted by the production efficiency management has been contributing to increase the uality of products and the productivity. These characteristics giving high performance to the TPS were considered, by its management itself for a long time, unique even in

Japan and difficult to be transferred abroad where industrial relations and carmaker-supplier relations were quite different from those of Toyota. In consequence, the management had no plans until 1980 to transfer its production to any country even if Toyota could sell its vehicles in large quantities, except the countries that have prohibited the import of completely built-up vehicles.

However trade conflicts between Japan and the USA obliged Toyota to produce in USA. 3. Era of the Globalization of Production: From 1980 Toyota met the same situation in Australia whose government imposed high customs duties on imported vehicles in declaring at the same time the increase in local content rate. This led Toyota to localize the production of Corona and Crown in 1967. Nevertheless, it was only from 1980 and even in a defensive way that overseas productions were essentially on the agenda of Toyota. 3. Commercial strategy under Voluntary Restraint Agreement Regime The growing protectionist pressure in the USA obliged the Japanese government to set up in 1981 the voluntary restraint of Japanese passenger car exports toward the USA. Under this quota regime, Toyota, allotted about 30% of exports, would firstly deploy two strategies in order to make limited exports more profitable: increase of exported commercial vehicles (the Hilux) excluded from the quota, and switching exported passenger cars from low range to high range (the Celica, the Supra and the Camry).

By founding a transport logistic company (1981) and a financial company (1982), Toyota has then strengthened its marketing. As a consequence, and despite the quota regime in the USA and Canada, Toyota’s exports toward the North America increased from 723 thousand units in 1980 to 1, 115

thousand in 1986, the peak year of its exports toward the North America. Toyota met the same situation in Europe where the EC Committee demanded the

Japanese government for slowing down its growing exports toward EC countries where some countries have been restricting imports of Japanese vehicles so as to protect local automobile industry — France, Italy especially. In addition, Toyota had to cope with rapid appreciation of yen from 1985, which was going to make its overseas price competitive edge dwindled. So, Toyota had no choice other than to promote overseas production. Toyota was then going to construct transplants in the North America and Europe after realizing the merger of TMC and TMS in 1982 for reinforcing management resources. . 2. Construction of Transplants in the North America and Europe However, Toyota did not dare to manage by itself the production in the USA where industrial relations and suppliers' behaviors were very different from Japanese ones without which Toyota could not believe in successful transplantation of production operations. For this reason, Toyota negotiated the foundation of a joint venture with Ford at the beginning of the 1980s. They could not reach a conclusion because of their disaccord about the model to produce.

In such a situation, GM proposed Toyota to create a joint venture from which GM could learn the TPS and procure sub-compact cars it would build, whereas Toyota could organize production as it wanted by the help of GM. Surely timid at the beginning, but through its experiences in this joint venture, Toyota came to convince itself of the transferability of the TPS to American industrial situations, and then decided to construct by itself its own

transplants in the North America. These transplants in North America have recorded better performance than had been.

The TPS then proved its transferability even into countries where industrial and business relations were different from those in its home country. Toyota also was making efforts to construct the “ mutual trust” between management and labor as well as between transplant and suppliers, which would constitute the base upon which all cooperative relations between them, would develop. These studies also emphasize that Toyota’s human resource management and industrial relations were hybridized there.

For instance, though Toyota’s production allowance was not adopted there, because of the wage system in the transplants following the norm of the UAW, a functional equivalent (“ Performance Improvement Plan Sharing” at NUMMI, bonus at TMMK) to the production allowance was introduced. However, the production system implemented in transplants remained static. On the contrary to the practice, kaizen was carried out by team members mainly through suggestion system and/or QC circles in the transplants.

This is for several reasons. (1) At Toyota, required competence was historically accumulated and succeeded by shop floor managers and engineers, whereas American team and group leaders just began, we can say, to learn know-how by doing their functions in day-to-day operations and model changes. (2) If kaizen conceived by team leader or group leader was imposed to workers, it would be rejected by workers in the American context of workers-team/group leader relationship.

So, making kaizen by workers themselves was favorable for training their kaizen mind about quality and efficiency, and creating a fellowship among team members in the case of QC circle so far as their employment is assured. In this domain, Toyota's general policy is: try at first to set into place Japanese style management, and if employees do not accept it, search for another acceptable way or a functional equivalent to adapt the TPS to local industrial relations. Teamwork" in Toyota's jargon represents inter-individual cooperation on the basis of such a mutual trust, so that " teamwork" does not means only working on team in workshops but cooperation between managers and workers, between teams, groups, sections, and divisions. Until the end of 1990s, Toyota succeeded in settling this " teamwork" in its transplants in North America. Of course, Toyota recognizes that long time is still necessary so that employee's competence at transplants catches up that of Japanese'.

Until then, the know-how accumulated and used in Japanese plants continues to be mobilized to the transplants in order to improve their productivity and product quality without of course neglecting the contribution of their workers. Toyota's real production in Europe began with the construction of Toyota Motor Manufacturing in UK (TMUK), equipped with an engine plant, and starting the production of the Carina E in 1992. The main reason for this localization of production into UK was apparently the construction of the EU that would make difficult the export toward the European markets protected.

According to the collective agreement between TMUK and AEU (Amalgamated Engineering Union) in 1991, they put into place the TMAB (Toyota Members Advisory Board), consisted of members of top

management and employees' representatives nominated by vote. TMAB has been regularly discussing the issues concerning two parties: wage, working conditions, company policies that influenced the employees. TMUK applied the annual salary even for the blue-color workers following after the Nissan UK, which then has been revised every year based upon the progress of worker's skill and company's performance.

Its production system is of course based upon the TPS, but had the same problems of kaizen activities as in TMMK. At the beginning then, the persons dispatched from Tsutsumi plant was taking care of kaizen. As for the purchase of parts, Toyota gave the priority to the procurement from European suppliers, so it was TMUK that was coming to gather the parts. Like as in the USA, TMUK organized a Technical Support Team in order to help its suppliers to improve the quality of their products under the long-term relationship with them. 3. 3 Localization of Production in the other Countries

In Australia, where Toyota had exported vehicles from 1959 and begun KD assembling from 1963, it had to satisfy the Australian government that demanded for increasing the local content rate up to 85% of vehicle price. So, Toyota reorganized, in 1977, Olbaly Trading (Toyota having 90% of its equity) into TMA (Toyota Manufacturing Australia) that became Toyota's passenger car producer in Australia, being equipped with an engine plant since 1978. Toyota also took 50% equity of AMI (Australian Motor Industries) in 1972, which has since been producing Toyota's utility vehicles.

Toyota implemented the TPS there in 1982 by realizing two shift works, standardized work, and short time die change system in order to increase

their productivity. Then, TMA and AMI became the first plants to which Toyota applied the TPS in foreign countries. By the way, Toyota founded a joint venture with GM, UAAI (United Australian Automotive Industries, the Australian version of NUMMI), in 1988 which, by absorbing TMA and AMI, would produce Toyota’s Corolla and Camry and GM’s Comodor, in order to reply to the Australian government encouraging the development of national automobile industry.

As the government policy became less constraint, and perhaps because of the divergence in their strategy, this joint venture was dissolved in 1996. In South Africa, TSAM (Toyota South Africa Motors), founded in 1961 as a marketing company of which Toyota has 27. 8% equity, began assembling CKD sets. Responding to the local government’s demand for increasing the local content rate, TSAM constructed in 1969 an engine plant so that the local content rate reached 55% in weight of vehicle.

Toyota’s relation with South Africa was kept even during the period where its apartheid regime internationally became critical after 1985, though Toyota “ adopted a more prudent policy in 1988” in its exports. In Thailand, which government applied a reduction of 50% to duties on vehicles produced at local KD assembly, TMT (Toyota Motor Thailand), founded by Toyota and TMS (Toyota Motor Sales) began to assemble KD sets since 1962. In Malaysia, Bolneo Motor, renamed Assembly Services Sdn. Bhd. changed about from import of Toyota’s vehicles into KD assembly in 1968 following the government industrial policy. In Indonesia, the government prohibited it too the import of vehicles in 1970 where P. T. Toyota-Astra Motor, founded as a joint venture of Toyota and P. T. Astra International, began assembling KD

sets of the Corona being equipped with an engine plant. In these countries, Toyota substituted exports with KD assembly, and increased local content rates over time because the local governments claimed for localizing production. 3. “ New Global Business Plan” In 1995, the trade conflicts between Japan and USA was at the peak where on May 16th, Michael Kantor of USTR declared the imposition of duties of 100% for price on Japanese high range cars imported. In such a situation, Toyota set forth the “ New Global Business Plan” for the years 1995-1998 in order to alleviate the conflicts. 1) Localization of Production. Its objective was to increase overseas production in three regions — North America, Europe and Asia-Oceania — from 1, 216 thousand units in 1994 to 1, 900 thousand in 1998.

Then the share of overseas production in overseas sales had to rise from 48% to 65%. This objective was not attained because of the economic crisis of ASEAN countries in 1998. However, the production capacity of its transplants in the North America was reinforced up to 1, 250 thousand units in 1999 after the construction of TMMI which could produce 150 thousand utility vehicles (Tundra T100). The production volume in 1998 of these transplants was 1, 010 thousand units, including those of NUMMI and TMMK.

In Europe, by constructing the second assembly plant in 1998, TMUK expanded its capacity up to 200 thousand units. In Asia, though the objective for this region was to produce 640 thousand units in 1998, its production volume shrank from 454 thousand to 280 thousand. As a result, the total production volume of these regions in 1998 remained 1, 380 thousand units in contrast with 1, 900 thousand in the “ Plan”. Concerning the share of overseas production in overseas sales, Toyota seems to renounce fixing

objective since the objective was difficult to attain because of change in market conditions.

In fact, this share in 1998 remained about 58% according to Toyota — a regional decomposition of share in 1997 gives about 60% in the North America, 25% in Europe and in Asia, and 50% in Oceania. However, we have to remark that by promoting this “ Global Business Plan”, Toyota succeeded in largely expanding its global production capacity, under the policy of “ produce where demand exists”. 2) Local procurement policy of parts, materials and equipment. The American government as well as other local governments had demanded increasing export of parts from their countries and local content rate of overseas production operations.

Mainly under pressure of the USA, Toyota changed its procurement policy from the well known closed policy — “ keiretsu transaction relations” — to “ open door policy” by setting in place “ Toyota Global Optimized Purchase System”, supported by “ Supplier Improvement Support Program”. This means that if potential suppliers can propose competitive cost in respecting quality, delivery time as well as committing themselves to continuous improvement, Toyota is ready to conclude purchasing contracts with them.

Toyota’s top management also decided to import increasing parts from abroad by political judgment despite the objection of its Purchasing Division that was taking care of suppliers in Toyota’s “ keiretsu”. Promoting the BBC in ASEAN and localizing parts production by construction of parts companies or plants, Toyota has been making efforts to increase local content rates and

the level of local production integration. 3) Sales of imported cars. Toyota also tried to sell more imported cars through its distribution networks.

Already in 1992, Toyota organized the DUO network for selling VW/Audi cars according to the agreement concluded with VW, which consisted of production by VW of Toyota’s pickups in its Hanover plant (cease of production in 1997) and marketing by Toyota of VW cars in Japan. In 1994, the sales volume of VW/Audi cars by the DUO chain was 19 thousand units from which it was increased up to 34 thousand in 1997 but to 28 thousand in 1998 because of the Japanese economic stagnation. Toyota also began to sell in Japan the Cavalier produced by GM (7 000 units in 1998) and the Avalon produced by TMMK (4 000 units in 1998).) Exports from transplants. In order to satisfy local governments claim as well as to obtain scale merits, Toyota has been promoting exports from its transplants. Without saying about its North American transplants, TMMUK began export of its cars toward the outside of Europe from 1996, of engine blocks to Japan, whereas the BBC was organized in ASEAN countries — production of power steering units and lower ball joints in Malaysia, of constant velocity universal joints in Philippines, and of engine blocks in Thailand, for example.

Showing its cooperative international strategy in its “ New Global Business Plan”, Toyota wanted, as a No. 1 of Japanese automobile producers, to cool down the trade conflicts. However, it was not done only to alleviate the conflicts, but also to deploy its global production network in such a veiled offensive way. Though it was not in the “ Plan”, Toyota then built a plant with production capacity of 150 thousand Corollas in Brazil which started production in 1998, founded Toyota Kirloskar Motor in India in 1997 to

produce multipurpose vehicles, and decided the production of the Yaris (Vitz in Japan) in France from 2001.

Toyota was also negotiating with the Chinese government over the construction of an assembly plant in China. Now Toyota looks able to carry on its global business without merge or closed business cooperation with foreign carmakers, except some strategic alliances. 4. Facing the Age of a World Oligopolistic Competition As we saw above, Toyota’s internationalization strategy was turned into offensive one so as to consolidate its place in global automobile market.

However, because of the worldwide reorganization of automobile industry at the end of the 20th century such as the merge of Daimler Benz and Chrysler, the absorption of Rover by BMW, that of Car Division of Volvo by Ford, and the cooperation of Renault and Nissan, the world automobile market seems becoming oligopolistic. In addition, investment in R&D for developing ecological vehicles is urgent and necessitates more and more important financial resources.

Competing on such a market might oblige carmakers to become “ big companies”, as they do. Can Toyota behave as a “ maverick” in such a situation? So, we see in this section Toyota’s financial resources for its globalization strategy, another dimension of globalization that is the internationalization of product development, the impact of globalization upon its home industrial organization and finally its partial alliance strategy to develop new ecological car technologies. 4. 1 Finance and Management of Overseas Operations

Though famous for its debt free management from the mid-1970s, Toyota issued convertible bonds of 200 billion yens in 1987, company bonds of 800 million dollars with underwriting right of new stocks in 1988, convertible bonds of 300 billion yens in 1988, company bonds of 1, 5 billions dollars in 1989 in order to finance the construction of new plants in UK and Japan. In fact, Toyota had to construct its new plants of TMMI, TMMC, TMUK, Tahara No. 4 and Toyota Kyushu form 1986 to 1992.

Though having a financial reserve of 2, 088 billion yens, Toyota was able to finance these constructions, it preferred profiting from low interest rates (between 1. 2 and 1. 7%) rather than reducing its financial assets which has been giving it a considerable financial profit. This financial policy has been maintained even during the 1990s. In 1992, company bonds of 1 billion Euro dollars was issued for investments; and in 1993, those of 1. 5 billion Euro dollars for refunding 1988’s bonds though their interest rates were high (6. 875% and 5. 625% respectively).

In 1997, Toyota emitted company bonds of 1 billion Euro dollars for repaying 1992’s bonds. From then, Toyota changed course in order to profit from low interest rates in Japan (1. 4 to 3%). In 1998, Toyota refunded 1993’s bonds by company bonds of 50 billion yens, and issued other bonds four times, whose total amount reached 350 billion yens. So, Toyota had the balance of 514 billion yens to refund in the March 1998. During these years, Toyota continued to accumulate its financial reserve up to 3, 939 billion yens in the form of deposits, valuable papers, etc.

Then, it is allowed to generalize that Toyota has been financing the productive investments by emission of bonds profiting from low interest rates, except Euro dollar’s bonds, and reinforcing its financial assets. Consequently, Toyota has disposable financial resources enough to carry out by itself the globalization strategy, including worldwide competition for ecological car development. About the management of transplants, Toyota seems giving a special status to the North American subsidiaries.

NUMMI was a fifty-fifty joint venture of GM and Toyota, TMMC being wholly owned subsidiary of Toyota, whereas the capital of TMMI was financed of 80% by Toyota Motor Sales USA (TMS USA) and of 20% by Toyota. This is because Toyota wanted to localize TMM USA by TMS USA’s reinvesting profits gained there. This localization policy in the USA arrived to found a holding company in the USA, Toyota Motor North America (TMNA), and a company controlling Toyota’s American facilities, Toyota Motor Manufacturing North America, in 1996. From then, TMNA has owned of 100% TMMK, TMM Indiana, TABC, TMM West Virginia, and of 87% Bodine Aluminum.

Toyota also has its holding company in Germany, Finland and Sweden, Norway and South Africa, which however concerns the distribution companies. Its overseas transplants out side of the USA were owned of 100% by Toyota and then controlled directly by Toyota. In general, their president being a Japanese, other Japanese staff dispatched from Toyota is strongly supporting locally employed managers as general managers or advisors of them. If Honda has a tendency to manage its transplants by Japanese staff,

whereas Nissan has delegated transplant’s management to local managers, Toyota is found between them about the management personnel policy.

As for the other production facilities, Toyota shared their capital with local companies because of local government policy. 4. 2 Internationalization of Product Development Toyota decides the product policy of its overseas production facilities, centralizing product development into the Product Engineering Design Department at Toyota City. About the vehicles transplants have to produce, market information is gathered by its foreign subsidiaries and sent to Toyota that based on it, decides the new model to produce and launch on the local markets.

As for the concurrent engineering with local suppliers, Toyota’s engineers travel to meet their engineers in order to perfect the design of parts. Or, as in the case of the development of TUV (basic utility vehicles: Kijan and Zace), local engineers come to participate in the product development at Toyota. This character of centralized product development will not change in the near future, but the design of body feature is different. Toyota has three design centers: Design Center in its Tokyo Head Office, Calty Design Research in the USA (since 1973) and N.

V. Toyota Motor Europe in Belgium (from 1990), which was removed to the south of France, renamed Toyota Europe Design Development in 1998. So, when a new car development is planned, a design competition is organized amongst these three design centers. For example, the body shape of the Prius was designed by an engineer at Calty Design Research after their competition, that of the Yaris (Vitz) by a designer at N. V. Toyota Motor

Europe. These centers are of course founded to develop the car designs suited to the local markets.

However, it is not probable in the foreseeable future that these overseas design centers have a competence to develop product designs. 4. 3 Impact of Globalization upon Toyota’s home industrial organization As we saw above, Toyota’s global business looks running well. However, advance in localization of production is actually posing two problems, aggravated by the long stagnation of Japanese economy. First, though in Japan, Toyota has to maintain the production at the level of more than 3 million vehicles in order to keep its employees (about 70 thousands), it seems difficult to follow this policy for a long run.

In fact, production of many plants, including those of its body makers such as Kanto Auto works, has been getting down. Hino, a truck maker of Toyota group, decided to reduce about thousand employees. Kanto Auto Works announced the shutdown of one of its assembly plants producing passenger cars. Even at Toyota, the tact time at Motomachi and Tsutsumi plants became two times longer in 1998 than had been in 1997 because of shrink of production volume. The situation is more serious as to its Japanese suppliers.

Toyota’s purchasing from them has a tendency to reduce, because not only of “ delocalization” of production, but also of Toyota’s “ Global Optimized Purchase System”. Though Toyota is recommending them a diversification of their products outside of automobile industry, it is difficult for weak suppliers especially under second tier suppliers to redeploy their business. In fact, their competencies deeply rooted to too specific transaction relations to be

able to develop completely new products, and there are not so many business chances in the actual state of matters.

Second, we can also foresee that the Toyota industrial model is going to alter once again, but this time under its localization of production. Some new reorganizations of its corporate system are observed and suggested. Facing international mergers and cooperation between carmakers, which will make market competition fiercer, Toyota decided to reinforce the ties among its group companies: — In order to do so and having a plan to found Toyota holding company at the same time, Toyota dispatched five vice-presidents to Denso, Aishin, Toyota Automatic Loom, Toyota Auto Body and Toyota Finance in 1999.

The holding company seems to be founded in order to reinforce the control over its group companies, especially over Denso that has been less dependent on Toyota (only 45% of its products were sold to Toyota) deploying its own strategy that sometimes compromised Toyota’s interests. For example, without agreement of Toyota, Denso sold to Fuji Heavy Industry a new engine control technology (VVT-i) that Denso had developed in collaboration with Toyota for four years from 1991.

With holding company and direct control by dispatched person, Toyota at least could supervise its group companies so as to prevent them from transferring new high technology to its rival companies, because the advanced high technology is regarded as a main weapon in fierce market competition. — Because of over capacity, emerged from the “ delocalization” on the one hand and market stagnation on the other, Toyota revised its

relations with Daihatsu and Hino by increasing its shareholding. Though assembling Toyota’s low range vehicles (Corolla, Townace, etc. from 1968 and with managers dispatched from Toyota, Daihatsu kept its own commercial strategy by developing its own vehicles in minicars and low range cars that often competed with Toyota’s ones. Toyota increasing its shareholding up to 51. 2% from 33. 4% (15. 4% before 1995) in 1998, Daihatsu became now Toyota’s subsidiary that produces mini-cars Toyota does not produce (Daihatsu supplies a small car, the Duet, to Toyota from 1999). In addition, the overseas operations Daihatsu deployed might be under the control of Toyota.

As to Hino, a heavy truck and bus maker, that had been assembling Toyota’s Hilux etc. from 1968, Toyota increased its shareholding up to 20. 1% from 11. 0% in 1998, so that Hino was also integrated in the division of labor in Toyota group. From 1999, Hino definitely became Toyota group’s truck and bus maker. This realigning of Toyota’s industrial organization in Japan going with the construction of a global production network proves that Toyota’s global strategy is set in place that has to permit Toyota to compete on fierce globalized market competition, shaken by mega and quasi mergers between carmakers.

In this situation, trumps of Toyota would be its technological competencies (especially its ecological technology proven by Prius) as well as its financial capacity that allows of massively investing in R. 4. 4 Partial Alliance Strategy After the commercialization of the Prius by Toyota, the first hybrid car in the world, development of ecological car became the focal point in the worldwide competition among carmakers. On the stagnant market, winners would be

those who launch brand new and salable cars without gasoline engine before its rivals by setting its technology as de fact standard.

However, the development of such a brand new technology demands a huge financial resources and time, from which appear alliances between carmakers. In the case of Toyota, who considers the development of ecological technology as one of the essential conditions for winning the fierce global competition at the 21st century, it founded a joint venture with Matsushita in 1996 in order to develop a new battery (fuel cell) for the Prius, which will be supplied to Honda from 1999 for its hybrid car.

The success of the Prius constitutes a trigger for the others of urgent development of ecological car in various forms, hybrid car, electric car or hydrogenous fuel engine car. And a future technological path is still open. Toyota itself does not believe the hybrid system of the Prius could be a final version. These circumstances augment financial and human resources to be invested in R, and necessitate a technological cooperation among various firms concerned.

Then, in 1998, Toyota concluded a technological cooperation with Exxon (one of the oil majors) for developing a new infrastructure for hydrogenous fuel supply. In order to develop de fact standard technologies of ecological cars, Toyota arrived to conclude a technological cooperation with GM in April 1999, into which Honda would participate after concluding a mutual supply of engines with GM in December 1999. Of course, these technological alliances of Toyota remain partial, because Toyota does not search any merger or fusion with those firms. . Conclusion Internationalization strategy

of Toyota changed during the first half of the 1980s from export-centered one to the localization strategy of production, excepting for early KD assembly in several countries and localized small production in Brazil, forced by local governments' protectionist policy. This change was imposed to Toyota, though it preferred the exports to the overseas production for the sake of its TPS, considered non transferable.

The trade conflicts from the end of the 1970s, the voluntary restraint of exports toward the USA were the main reasons for Toyota's decision to produce in the USA. The rapid appreciation of yen from 1985, but also the self-conviction of transferability of the TPS led Toyota to expand overseas production operations for substituting its exports with products of its transplants. This tendency was reinforced when Toyota established its " New Global Business Plan" in order to alleviate the trade conflicts with the USA in 1995.

From then, " produce where demand exists" became Toyota's globalization strategy. Remark that this globalization of production has been deployed on the basis of its international sales network created during the 1960s and 1970s. Then, Toyota does not carry out its overseas productions where the demand has to be searched yet. Also, it is out of question for Toyota to merge with any foreign carmaker, because its industrial model is too specific to do it.

Moreover, Toyota has financial assets enough to conduct this strategy and invest in the R&D of ecological vehicles, as it was shown by the launch of the Prius. Toyota seems capable to compete on the world automobile market

where the zero sum game is played. However, this does not mean that its industrial model remains unchanged. Reinforcement of the ties of its group companies, move toward the foundation of its holding company, “ delocalization” of production, increasing parts procurement from abroad suggests reorganization on going of its industrial organization in Japan.

Is Toyota aiming to become a global company? On the other hand, Toyota changed its product policy. Now, Toyota gives its priority to product innovation in order to take the initiative in developing future vehicles like as the Prius or in giving a new concept to cars like as Vitz (Yaris), as if the development of such cars prior to the others constituted the best card to compete on the zero sum game market.

In any way, Toyota’s industrial model seems moving from “ continuous reduction of costs at constant volume” into “ innovation and continuous reduction of costs at constant volume”. III) TOYOTA † A GLOBAL AUTO GIANT: Toyota embodies a true global form of working and style, which stems primarily from following: • Toyota headquarters at Japan seeks substantial control over its country operations in an effort to minimize redundancy, and achieve maximum efficiency, learning, and integration worldwide. In some extreme cases, Toyota’s global strategy asks why not make ‘ the same thing, the same way, everywhere? ‘ It favors greater central coordination and control than multi-domestic strategy, with various product or business managers having worldwide responsibility. • Research & Development is centralized at Toyota’s headquarters, and management tends to view the world as one large marketplace. • Toyota’s global strategy provides management with a greater capability to respond to worldwide

opportunities. It increases opportunities for cross-national learning and cross-fertilization of Toyota’s knowledge base among all its subsidiaries • Toyota’s global strategy creates economies of scale, which results in lower operational costs. • Toyota can also improve the quality of products and processes — primarily by simplifying manufacturing and other processes. High-quality products promote global brand recognition and give rise to customer preference and efficient international marketing programs. It is challenging for Toyota management, to closely coordinate the activities of its large number of widely-dispersed international operations. • Toyota must maintain ongoing communication between headquarters and the subsidiaries, as well as among its subsidiaries. • In some extreme cases, Toyota’s global strategy results in a loss of responsiveness and flexibility in local markets. • Toyota’s local managers sometime find themselves stripped of autonomy over their country operations and become demoralized and lose their entrepreneurial spirit.