PSA Peugeot Citroën:
Strategic Alliances for Competitive Advantage?

"I don't want to boast, but I can say that we are probably the champions in the sphere of the joint projects."[1]

- Jean-Martin Folz, President, Board of Directors, PSA Peugeot Citroën, in 2003.

INTRODUCTION

In February 2005, PSA Peugeot Citroën (PSA) entered into an agreement with Mitsubishi Motor Corp. (Mitsubishi)[2], the ailing Japanese car maker. According to the terms of the deal, Mitsubishi agreed to supply 30,000 units of a new sports utility vehicle (SUV) every year to PSA, which would then be sold under the Peugeot and Citroën marques. The deal enabled Mitsubishi to utilize its idle production capacity, and PSA to fill a major gap in its product range.

The deal with Mitsubishi was typical of PSA‟s strategy of entering into alliances with other major automobile makers. Over the years, PSA has entered into long-term relationships with Renault S.A (Renault)[3], Fiat Auto SpA (FIAT)[4], Ford Motor Co. (Ford)[5], Toyota Motor Corp. (Toyota)[6], and BMW AG (BMW)[7]. Such alliances have helped PSA share costs, risks and investment. At the same time, PSA was also pursuing R&D independently with the aim to sharpen its competitive edge.

In January 2006, PSA announced that its profits for the year 2005 would be less than previously estimated. This profit warning - the second in three months - reflected the poor sales performance of the company‟s cars in Europe. The competition in the automobile market in Europe remained intense and this contributed to lower margins. PSA had launched several new models in 2005. Even so, worldwide sales of Peugeot branded cars in 2005 fell by 1.5%. However, Citroën car sales were 3.5% higher in the same period.

[1] "Different brands, common strategy," www.zr.ru, April, 2003.

[2] Mitsubishi Motor Co. launched its first passenger cars in 1917. Till 1970, the company was part of Mitsubishi Heavy Industries (MHI), which was founded by Tsukomo Shokai in 1870. In the 2000s, Germany-based DaimlerChrysler acquired a 37% share in the company.

[3] Renault, the French automobile maker, was founded by Louis Renault in 1898. As of September 2005, the Renault group revenues touched € 30.8 billion (nine-month period).

[4] FIAT or Fabbrica Italiana Automobili Torino, the Italian automaker, was founded in July 1899 by a group of investors. In the 2000s, the company faced a severe financial crisis with losses touching $ 1.2 billion which necessitated a major restructuring exercise.

[5] Ford was founded in 1903 by Henry Ford and a group of investors. In 2004, the company reported a loss of $ 155 million in its automotive business.

[6] Toyota, the Japanese auto maker, was established in 1937. The company has grown to become the second largest auto manufacturer in the world with net income crossing ¥ 1,171 billion in 2004-05.

[7] BMW or Bayerische Motoren Werke was founded in 1913 as Rapp Motoren Werke by an engineer Karl Friedrich Rapp. In 1917, the name was changed to BMW. The company caters to the premium segment and in 2004, its net profit had reached £ 2.2 billion.

The Peugeot arm of PSA expected to sell two million cars in 2006. The company hoped to sell, by the end of 2007, half a million units of its new model, the 207, a compact car launched in January 2006.

BACKGROUND NOTE

About Peugeot

The history of PSA dates back to the nineteenth century. In 1810, Jean-Frederic Peugeot, together with his brother Jean-Pierre Peugeot (Jean Pierre), transformed their textile mill in Alsace, France into a foundry. The brothers invented a new process of making sprung steel. Using this new technology, they started making saws, watch springs, and other products. In 1858, Peugeot adopted the now familiar lion logo as its symbol (**Refer Exhibit I A for the logo**). In the 1880s, Peugeot was managed by Armand Peugeot, Jean Pierre‟s grandson. In 1885, Peugeot started producing bicycles. In 1889, Peugeot unveiled its first automobile – a steam powered three-wheeler. However, almost immediately, the steam engine was dropped in favor of the petrol engine patented by Gottlieb Daimler. The first „customer‟ car was delivered in 1891. In 1892, Peugeot made 29 cars and by 1899, production had increased to 300 cars a year.

Peugeot made its presence felt in several rallies and competitions in the 1890s. The first appearance of a Peugeot in a race was in the 1894 Paris-Rouen Trial (which is widely considered as the world‟s first motor race). Peugeot tasted its first success in the 1895 Paris-Bordeaux-Paris race.

In 1896, Peugeot started making its own engines. The same year, Societe Anonyme des Automobiles Peugeot, a separate automobile company, was set up by Peugeot. In 1900, the company‟s first small car christened Bebe was launched. In 1902, the company opened a new factory in Lille. Soon, the factory started making motorbikes as well. With the success of its products, yet another factory was opened in 1910 in Sochaux. All this time, the company‟s cars continued to do well at motor races.

After the First World War, the company began to concentrate on making diesel-powered cars. In 1922, Peugeot Quadrilette, a diesel car replaced the Bebe. The Quadrilette was a huge success. In subsequent years, Peugeot acquired several companies like Bellanger Car Company in Neuilly, and De Dion Bouton factory in Puteaux. In 1929, Peugeot launched the 201 model. The 1930s saw the launch of the 202 and 402 models, which went on to become best-sellers.

There were no new model launches during the Second World War. In 1947, the 203 model was launched. The period also saw new acquisitions like Chenard-Walcker and Hotchkiss. In 1955, the company launched the 403, which sold 1.2 million units in a decade.

About Citroën

In 1912, André Citroën (André) paid a visit to Ford‟s plant in the USA and learnt the operational details of mass producing cars. In 1913, André established the Société des Engrenages Citroën headquartered at Quai de Grenelle in Paris. Soon he made preparations to transform an armaments plant into an automobile factory. In 1919, the company launched its first car, the Type A, the first mass-produced model in Europe. Around this time, the chevron[8] shape of its gear teeth was adopted as the company logo (**Refer Exhibit I B for the logo**). In 1921, a second model – the B2 - was launched, replacing the Type A. In 1922, a Citroën achieved the unique distinction of being the first car to cross the Sahara desert.

[8] The general shape of the „V‟ character, or a triangular shape pointing upwards/downwards, is referred as chevron.

In 1924, a new company, Société Anonyme André Citroën, was created. The same year, sales subsidiaries were opened at Brussels, Cologne, Milan, Amsterdam and other important cities in Europe. In 1924-1925, Citroën became popular for a motor expedition referred as the black cruise[9]. In 1927, the C4 was launched. In 1931-32, Citroën organized yet another motor expedition called the yellow cruise[10]. In 1934, the company launched the 7A, which incorporated several innovative features like front wheel drive, torsion bar suspension, aerodynamic body, hydraulic brakes, etc. However, during the period the company was facing financial problems. In 1934-35, Michelin, the French tire maker, acquired a major stake in Citroën and started a restructuring exercise which included layoffs. Michelin was able to wipe off Citroën‟s debts and improve its efficiency. In 1935, André passed away.

During the Second World War, the Citroën factory was bombed, which led to a drastic fall in production. However, the company soon rebuilt the plant. In 1948, the 2CV van was launched. In 1953, the company entered into an agreement with Panhard, an armored vehicle maker, to partially merge the two companies‟ sales networks. In 1958, the company set up a new plant at Vigo, Spain, to manufacture its 2CV vans. In 1965, Citroën acquired Panhard. In 1967, the company acquired a majority stake in Berliet, another automobile company. In 1968, a parent company - Citroën SA, which owned Citroën, Panhard and Berliet - was formed. In 1974, Peugeot acquired a 38.2% stake in Citroën SA.

PSA Peugeot Citroën

In May 1976, Peugeot took complete control of Citroën SA and PSA Peugeot Citroën was formed. PSA, the holding company, was the full owner of both the companies (Automobiles Peugeot S.A and Automobiles Citroën S.A). In the same year, the 10 millionth Peugeot car rolled out of the factory premises (**Refer Exhibit II for new model launches during 1977-2005**). In 1977, Société Mécanique Automobile de l‟Est (SMAE) was established to manufacture gear boxes and engines. In the same year, SAMM, an aeronautics component manufacturer, was also acquired by the group. In 1978, the European arm of Chrysler[11] (Chrysler France, Chrysler UK, and Chrysler Spain) was acquired by PSA. PSA sold the models of the former Chrysler‟s European subsidiaries, including Simca[12] and Sunbeam[13] under the Talbot marque. In 1980, Peugeot and Talbot were

[9] The black cruise, described as „a great route to a great isle‟, was a 28,000 kms trip undertaken by Georges-Marie Haardt and his team. The expedition, which started at Colomb-Bechar in Algeria, passed through Niger, Chad, Oubangui-Chari (Central African Republic) and the Belgian Congo (Democratic Republic of Congo). At Kampala, the team split into four groups and reached Tananarive in Madagascar, each taking a different route (Mombasa, Dar-es-salam, Mozambique, and the Cape).

[10] The yellow cruise was meant to open up the old „Silk Route‟ (an ancient trade route which connected China, Persia, Arabia and Europe) to cars. The 30,000 km trip started in Beirut, Lebanon and passed through the Pamir region (Central Asia). Another group, which started in Tien Tsin (Tianjin, China), joined the Pamir group at Aksu (Xinjiang Uygur, China) and together proceeded to Peking (Beijing).

[11] Chrysler Motor Corporation was established in 1925 by Walter P Chrysler. The company merged with Daimler Benz in 1998 to form DaimlerChrysler. In 2004, DaimlerChrysler‟s revenues crossed US$ 192 billion.

[12] Societe Industrielle de Mecanique et Carrosserie Automobile or SIMCA was founded by Henri Pigozzi in Nanterre, France in 1934. Initially, the company produced FIAT models under a license agreement. Subsequently, with the success of its „Aronde‟ models, the company‟s dependence on FIAT decreased. In the 1950s, the company acquired automobile companies like Unic, Automobiles Talbot and the French arm of Ford. In 1963, Chrysler bought a majority stake in Simca.

merged and a single dealership for both marques was established. The marketing for both product ranges was handled by Peugeot.

In 1982, Citroën shifted its headquarters to Neuilly, France. In the same year, a new plant to manufacture gear boxes was inaugurated at Valenciennes. In 1986, the Talbot models were discontinued. In 1990, Peugeot celebrated its 100th year as an auto maker. In 1991, Peugeot established its subsidiary, Peugeot do Brasil, in Brazil. In 1992, the group entered China and Egypt through partnership agreements.

In 1994, Citroën celebrated its 75th anniversary. In 1998, the group unveiled its new high-pressure direct injection (HDi) engine which was incorporated in all its models. In 2001, the group received ISO 14001 certification for several of its facilities. In the same year, the group entered into an agreement with two French technology research institutions - Scientific Research Center (CNRS) and Atomic Energy Commission (CEA) for joint research on fuel cells. In 2005, the group sold Panhard.

In 2005, PSA worldwide sales reached 3,389,900 units, with sales of the Peugeot marque touching 1,995,450 units and the Citroën marque another 1,394,450 (**Refer Exhibit III for region-wise sales of PSA**). As of 2006, the group was selling over 22 models (**Refer Exhibit IV for List of Models of Peugeot & Citroën as of 2006**).

FORGING ALLIANCES

PSA could be considered the pioneer of strategic alliances in the automobile industry. Its first alliance with Renault started way back in 1966. Over the years, the company has gained considerably from its strategic alliances with several automobile and auto component companies. Subsequently, other automobile companies have taken the cue from PSA, and entered into alliances and partnerships of their own, with their competitors (**Refer Exhibit V for Alliances in the Auto Industry**).

PSA and Renault S.A

PSA and Renault had a series of agreements that involved several industrial and technological projects. Peugeot and Renault first collaborated in 1966, when the two companies entered into a cooperation agreement for the joint production of mechanical subassemblies. In 1969, the two companies further strengthened their partnership by establishing a joint venture - La Française de Mécanique (LFM) - to produce long-series components and engines which were to be used in Peugeot and Renault cars. The 50:50 joint venture was located in Douvrin, in northern France. In the same year a limited company called Société de Transmissions Automatiques (STA), owned 80% by Renault and 20% by Peugeot, was founded. STA was established primarily to produce automatic transmissions for Renault and rear-axle assemblies for Peugeot. The STA plant was located in Ruitz in northern France.

[13] Sunbeam Motorcar Company Ltd. (Sunbeam) was established in 1905 by John Marston. In 1920, it merged with Darracq, a French automobile company. Darracq had earlier acquired Clement-Talbot Ltd, a London-based automobile company. STD Motors Ltd (where STD stood for Sunbeam-Talbot-Darracq) was created as the holding company. In 1935, due to financial problems, Clement-Talbot Ltd was sold to the Rootes Group. Soon, Rootes also purchased Sunbeam. In 1967, Chrysler took complete control of the Rootes Group.

In 1971, Peugeot, Renault and Volvo[14] came together to design a V6 engine[15]. The three automobile makers formed an equally-owned company called Peugeot Renault Volvo (PRV). The engines were manufactured by LFM and by 1974, they were being used in the Peugeot 504 and 604, and the Renault 30. However, in 1989, Volvo pulled out from PRV. As a result, Peugeot and Renault became 50% partners in the company.

In 1992, PSA entered into a fresh technological and industrial agreement with Renault to develop a new series of automatic transmissions. Meanwhile, LFM continued to develop improved versions of the V6 engines. In 1996, LFM introduced the new V6 ES 9 engine for mid-range and high-end Renault cars, the Peugeot 406, and the Citroën Xantia and XM models. Again in 1997, the self-acting automatic transmission - BVA - was jointly developed by PSA and Renault, with each company bearing FRF 2.8 billion as development costs. The transmission was manufactured at the STA plant in Ruitz and Peugeot's plant in Valenciennes.

In 2000, PSA and Renault launched an improved three-liter version of the V6 ES 9 engine. The new engine was installed in mid-range and high-end Renault, Peugeot and Citroën cars and multipurpose vehicles. The LFM plant manufactured around 27,000 V6 ES 9 engines in 2000.

Fiat Auto SpA

PSA‟s strategic relationship with Fiat started in 1978 when the two companies signed their first cooperation agreement to design and manufacture a light commercial vehicle. A joint venture, Société Européenne de Véhicules Légers (Sevel SpA), owned 50% by Fiat, 25% by Automobiles Peugeot and 25% by Automobiles Citroën, was established for this purpose. The production of the vehicles (Fiat Ducato, Peugeot J5 and Citroën C25) began at Val di Sangro facility, near Pescara, Italy in 1981. In 1988, the scope of the joint venture with Fiat was expanded to include the design and production of multi-purpose vehicles (MPVs).

In 1993, the Val di Sangro plant started the production of the Peugeot Boxer, and the Citroën Dispatch - both light commercial vehicles. The plant continued to manufacture Fiat Ducatos as well. In 1994, a new plant at Sevelnord, Valenciennes, France began operations for the production of the Peugeot 806, the Citroën Synergie, and the Fiat Ulysses and Lancia Z (Zeta). The agreement between PSA and Fiat required the partners to manage the plants located in their country of origin, i.e., the Val di Sangro plant was managed by Fiat and the Sevelnord plant was managed by PSA. PSA and Fiat owned 50% in each plant and shared the production capacity equally. In 1995, the Sevelnord plant started production of the Peugeot Expert, the Citroën Relay and the Fiat Scudo light commercial vehicles.

In 2002, PSA declared that its collaboration with Fiat in the development of light commercial vehicles would be extended through 2017 making it one of the most enduring alliances in the automobile industry. PSA and Fiat signed a major framework agreement which spelt out various aspects of the collaboration. PSA and Fiat were to invest around € 1.7 billion to manufacture two lines of light commercial vehicles.

In 2005, Tofas, a Turkey-based automobile manufacturer, entered into an agreement with PSA and Fiat making it a three-way collaboration. The agreement involved the development and production

[14] Till 1998, Volvo Cars was part of AG Volvo. AG Volvo was founded in August 1926 in Gothenburg, Sweden. Volvo Cars was acquired by Ford in 1998.

[15] V6 engine is a V engine with six cylinders. A V engine is a common configuration for an internal combustion engine wherein the pistons are aligned so that they appear to be in a V when viewed along the line of the crankshaft. (Source: www.wikipedia.org)

of small, entry-level light commercial vehicles. The new models were to expand the product ranges of Peugeot, Citroën and Fiat. They were to be manufactured at Tofas‟ plant in Bursa, Turkey and were to be launched in 2008.

As of 2005, the PSA-Fiat partnership had jointly produced, since 1978, a total of 3.3 million light commercial vehicles and 400,000 multipurpose vehicles.

Ford Motor Co.

PSA‟s cooperation with Ford began in September 1998. The two automakers announced a large-scale agreement to jointly develop four families of small diesel engines incorporating the latest technologies, including Common Rail Direct injection (CRDi)[16]. The initial announcement put the development time for the new engines at two and a half years. In 1999, the initial agreement was expanded to include an extended range of small aluminum direct injection diesel engines for cars and light commercial vehicles. The new agreement also included technological upgrades of a mid-sized second generation engine and a range of V-diesel engines for the luxury vehicles of both companies. PSA and Ford shared the total cost of the project equally. The partnership with Ford developed in four phases.

In 2001, in the first phase, PSA and Ford unveiled the first direct injection diesel engine developed under the cooperation agreements, which replaced the TUD[17] range of engines. The 1,398 cc engines were sold as „HDi 1.4‟ by PSA and „Duratorq TDCi 1.4‟ by Ford. The engines were mounted on the Peugeot 206 & 307, the Citroën C2 & C3 and the Ford Fiesta and Fusion. Both companies identified 23 applications for the new engine family. The production of the engines at the Douvrin plant saw high productivity levels with daily production touching 6,000 engines. As part of the first phase, a new 1.6-liter (1,590 cc) common rail diesel engine was also launched.

In early 2003, PSA and Ford introduced a 2-liter CRDi diesel engine (1,988 cc) developed in the second phase of their cooperative venture. These engines were manufactured at PSA‟s Trémery plant. The high-performance and low-noise engines were, reportedly, more fuel-efficient and cleaner than those available in the market. The aggregate investment for the development of the engines came to nearly € 1 billion.

While the first two phases of the cooperation were carried out under the leadership of PSA, the third and fourth phases were led by Ford. In June 2003, as part of the third phase, a new 2.7-liter V6 six-cylinder 24-valve engine was unveiled. Production of the engine began in the following months. The engine was first mounted on the Jaguar S-Type. Subsequently, it was used in the Peugeot 607, the Land Rover Discovery, the Range Rover Sport, the Jaguar XJ, the Peugeot 407 Coupe, and the Citroën C6.

In October 2005, under the fourth phase of their cooperation, PSA and Ford started the production of a new series of 2.2-liter CRDi diesel engines for light and medium commercial vehicles. In addition, they introduced a new 2.2-liter HDi/TDCi diesel engine that was eventually mounted on several Peugeot, Citroën and Ford upper/medium and executive passenger car platforms. The engines were produced at the Trémery plant. The HDi/TDCi engine showcased the companies‟ ability to work together in developing high-performance diesel engines (See Table I).

[16] CRDi is a modern variant of direct fuel injection system for diesel engines. It features a high-pressure (1000+bar) fuel rail feeding individual solenoid valves as opposed to mechanical valves.

[17] The PSA TU engines were a family of small four cylinder engines used in Peugeot and Citroen cars. The first TU engine was introduced in 1987. They came in petrol and diesel variants. The diesel variant was referred as TUD.

Table I

A Comparison of Different Manufacturers' Diesel Engines

Manufacturer	Engine	Max. Power (PS)	Max. Torque (Nm)	Vehicles
PSA/Ford	2.7-L V6	207@4000 rpm	440@1900 rpm	Jaguar S-Type, Peugeot 607
Isuzu	3.0-L V6	180@4000 rpm	370@1900 rpm	Saab: 9, Renault: Vel Satis, Opel: Vectra & Signum
Volkswagen	2.5-L V6	180@6200 rpm	370@1500 rpm	Audi A6
DaimlerChrysler	3.2-L I6	204@4200 rpm	500@1800 rpm	Mercedes E & S-class

Source: www.autoreport.com.

In all, PSA and Ford jointly produced four families of CRDi diesel engines namely 1.4-liter/1.6-liter engines, a second-generation 2-liter engine, a 2.7-liter V6 engine, and a new family of engines for light commercial vehicles. The cooperation made PSA-Ford the world's leading diesel engine manufacturer. By 2005, they were jointly manufacturing more than 9,000 engines a day.

Toyota Motor Corp.

In July 2001, PSA and Toyota signed a cooperation agreement in Brussels, Belgium to establish a joint venture company. Toyota Peugeot Citroën Automobile (TPCA) Czech was established for the joint development and production of small cars designed mainly for the European market. The companies also announced that the small cars developed by the joint venture would be priced below the entry-level cars of the two partners. This meant that the factory for the production of these cars had to be established in a low-cost country and meet stringent requirements. After an extensive search, Kolin in the Czech Republic was identified as the location for the plant. The plant started production of Toyota, Peugeot and Citroën branded cars in 2005. The capacity of the plant was 300,000 vehicles per year, with 100,000 cars for each of the brands - Peugeot, Citroën and Toyota.

Toyota was in charge of development and production, while PSA was responsible for purchase and logistics. The total investment, primarily for research and development and industrial expenditure, of around € 1.5 billion, was shared between the two automakers.

BMW AG

In 2002, PSA entered into a cooperation agreement with BMW to jointly develop and produce an all-new family of small 4-cylinder petrol engines incorporating the latest technologies. In June 2005, PSA and BMW presented the industrial plan for production of the engines. The engines were later used in Peugeot and Citroen cars and by Mini[18] (wholly-owned by BMW). While the main engine was manufactured solely at PSA‟s Douvrin plant in Northern France, the engine assembly was done at Douvrin for PSA and Hams Hall in the UK for the Mini. PSA and BMW implemented a coordinated process to enable complete transparency between the two engine plants

[18] Mini is a wholly owned subsidiary of BMW since 2001. It manufactures the MINI, a small car, which is a „retro‟ redesign of the „classic Mini‟ – a car made by British Motor Corporation from 1959 to 2000.

in order to deal effectively with any quality issues. PSA‟s Charleville and Mulhouse Metallurgy Division plants were assimilated into the industrial plan as suppliers of raw castings.

The design and development of the engine was done largely by BMW. PSA provided the logistics support for production of the engines. A complete production module was brought on line in late 2005 at the Francaise de Mecanique plant in Douvrin. The module was based on the development of a highly integrated, independent production unit that could easily be replicated on other sites. The plant was designed to produce 2,500 units a day. The first module, with an investment of € 330 million, produced an engine every 26 seconds. At its maximum production capacity, overall annual production was expected to reach one million units. At full capacity, the module employed 1,120 employees, working in four shifts.

The cooperation resulted in a number of innovations[19]. The engines set new standards in performance, driving comfort, fuel economy and CO_2 emissions.

Mitsubishi Motor Corp.

In February 2005, PSA and Mitsubishi announced a cooperation agreement for a new SUV, with 30,000 vehicles to be produced every year in Japan and to be sold under the Peugeot and Citroën marques**.** The SUV model, which was expected to roll out by 2007, was to be styled differently for the Peugeot and the Citroën versions. However, the two versions were to be equipped with the latest HDi diesel engines. Initially, the SUVs were to be marketed only in Europe. However, the two companies were expected to enter other markets in the future.

THE RATIONALE BEHIND THE ALLIANCES

In the 1990s and 2000s, intense competition in the auto industry led to a wave of consolidation. Several auto companies bought stakes in their competitors. For example, DaimlerChrysler bought a 37% stake in Mitsubishi, Ford bought a 33% stake in Mazda, GM held a 20% stake in Fiat Auto, and Renault acquired a 44% stake in Nissan. PSA did not make any effort to buy or acquire stakes in other auto companies. “We can definitely get by on our own,”[20] Folz said. PSA, however, concentrated on entering into strategic alliances to counter the challenges posed by its competitors. A major advantage of such strategic alliances over a merger or acquisition was that PSA did not have to look for massive debt financing and years of inefficiencies due to duplications in manufacturing. PSA entered joint ventures mostly with strong players – Ford, Renault, Toyota, and BMW. And the purpose of these alliances was to share costs and investments and create synergies.

PSA believed that an important factor for success was the ability to bring out a variety of models with minimum costs. Folz said, “The key to succeeding in this car market is to rapidly produce cars as varied and attractive as possible and to do that at a competitive cost,”[21] PSA‟s alliances with Toyota and Fiat helped it to expand its product range. At the same time, by sharing the costs and risks, it was able to provide more choice to its customers with minimum investment.

PSA‟s strategic alliances were also meant to achieve economies of scale, which in turn helped lower per unit costs and risks. The company brought out several models of cars based on a single platform,

[19] The innovations which came out of the alliance were - the lost foam process for cylinder heads, pressurised aluminium casings with cast-iron jackets inserted into the casting, steel crankshafts with un-machined counterweights, connecting rods forged using the double impression method, etc.

[20] Radu Boghici, “France‟s Peugeot on look-out for joint ventures,” www.vectorbd.com, April 15, 1999.

[21] Christine Tierney, “Can Peugeot go it alone,” www.businessweek.com, April 17, 2000.

using its superior styling and design skills to differentiate the models. Folz said, "The key to survival in the car industry today is not to produce three, four or five million cars. The real question is one‟s ability to produce a maximum number of cars on a limited number of platforms. That‟s what we're trying to do."[22] The alliances with Toyota for small cars and with Fiat for light commercial vehicles served to create new platforms, which would be used to launch several future models.

PSA‟s alliances with Renault, Ford and BMW helped it develop engines with the latest technology, something which it might have found it difficult to manage alone. The alliances were successful in creating synergies between PSA and its partners. Owing to its alliances with the major players, PSA managed to remain at the forefront of engine technology.

The shared costs and risks helped PSA not only to price its cars competitively but also enjoy higher margins. While Volkswagen, the market leader and PSA‟s rival in the European market, had a profit margin of less than 1%[23] in 2004, PSA enjoyed a margin as high as 4% in the same period.

Apart from sharing costs, risks, and investments, strategic alliances also helped PSA to acquire and develop new technologies. In the joint venture with Toyota, though the production was controlled by Toyota, 10 managers from PSA were stationed at the plant providing them with the opportunity to learn about the world-renowned production system followed by Toyota. This was expected to improve the production system at PSA in the future.

PSA also seemed to be reaping unexpected rewards from its joint ventures. A case in point was again its joint venture with Toyota for the Peugeot 107, Citroën C1 and Toyota Ayga city cars. Toyota was known the world over for the superior quality and dependability of its cars. The high quality was the direct result of the famed Toyota Production System (TPS). On the other hand, PSA cars didn‟t figure very high on dependability, as evidenced by their poor customer satisfaction scores and low resale values. (See Table II for the 2005 J.D. Power and Associates‟ customer satisfaction index). Analysts however expected the 107 and C1 cars to have higher resale values owing to Toyota‟s involvement in their production.

Table II: 2005 J.D. Power & Associates Customer Satisfaction Index

Rank	Brand	Score
1	Lexus	84.8
4	Toyota	83.5
Industry Average		**78.6**
26	Citroën	76.6
30	Peugeot	74.6

Source: www.motor.org.uk.

The success of any alliance depends to a large degree on the partners having similar goals and common interests. (**Refer Exhibit VI for a short note on making alliances work**). In the case of PSA‟s joint ventures, the alliances were as beneficial to the other partner as to PSA. For example, the former President of Toyota Motor Europe, Shuhei Toyoda who was part of the negotiations

[22] Radu Boghici, "France‟s Peugeot on look-out for joint ventures," www.vectorbd.com, April 15, 1999.
[23] "Volkswagen brakes for epic change," www.businessweek.com, July 25, 2005.

with PSA said, "We needed a partner to get the right volume for costs."[24] And the volumes were achieved by entering into a joint venture with PSA.

GOING IT ALONE

PSA was well aware that in an increasingly competitive market, it could sell more only if its vehicles were superior, distinct and offered unique advantages. Therefore, in spite of its many alliances, PSA was investing in excess of € 2 billion in exclusive research & development facilities and projects. Pascal Henault, Vice-President (Innovation and Quality) said, "Innovation is a way to differentiate our cars in terms of concepts, styling and features that deliver perceptible customer benefits at affordable cost."[25] At its R&D centers at Belchamp La Garenne-Colombes and Velizy, hundreds of engineers and scientists were working towards new and innovative solutions, with the result that PSA filed more than 300 patents every year. In October 2004, PSA unveiled a new design center named Automobile Design Network near Paris to give a further thrust to its research initiatives.

PSA"s research & development efforts were based on a „Research and Innovation Plan" which was an integrated and comprehensive system of research projects covering every area of automobile development. For example, PSA engaged scientists to improve the ergonomics, architecture, production process, etc. of its vehicles.

At a strategic level, PSA had adopted a product policy wherein it was focusing its research efforts particularly on three critical areas – safety, fuel economy, and comfort. To improve the safety of its vehicles, the company conducted research on driver-support, anti-skid, and emergency braking systems. It was also working on energy-absorbing deformable mechanical structures. Fuel economy was another area on which the company was focusing its research efforts. Diesel and petrol engines with improved mileage, fuel cell technology and hydrogen storage systems[26], were some of the research projects that PSA was engaged in. Driver-vehicle interface ergonomics was another area of focused research for PSA. The objective was to enhance driving pleasure and comfort.

CHALLENGES

Volkswagen was the undisputed leader (in terms of the number of cars sold) in the European car market in 2005. Even though PSA continued to retain its second position in Europe, the gap with Volkswagen was widening. Volkswagen managed to increase its market share from 18.6% in 2004 to 19.3% in 2005, while PSA"s share fell from 13.8% to 13.5%. Though Toyota was a distant eighth in the rankings, it had improved its sales in a shrinking market.[27] Moving towards its goal of capturing 15% of the world automobile market by 2010, Toyota was intensifying its efforts in Europe – an important market for the carmaker.

[24] "Revved up for battle," www.businessweek.com, January 10, 2005.

[25] Strategy, 2004 Annual Report, www.psa-peugeot-citroen.com, 2004.

[26] As part of its research on fuel cell technology, PSA had designed two demonstrators powered by fuel cells – the TaxiPAC and H_2O. The TaxiPAC system uses hydrogen stored on board the vehicle. This system requires further refinement and PSA was conducting research on making the hydrogen storage system safer and more efficient.

[27] According to ACEA, the total light vehicle registrations in Europe (26 countries) in 2004 were 1.11 million. In 2005, the registrations dropped to 1.07 million.

PSA‟s strength was in compact cars which were hugely popular in most countries in Europe, its traditional market. However, the Japanese players (especially Toyota and Honda) were increasingly targeting the same segment. Even DaimlerChrysler and BMW were expanding their product ranges to include small cars.

PSA received a mere 15% of its revenues from outside Western Europe. In other markets where PSA had a presence, the company was not doing too well. In China, GM and Volkswagen were ruling the roost.[28] PSA‟s market share in China was stuck at around 5% over several years. And in India the company was not even present. However, its sales in Russia and Brazil were picking up. (**Refer Exhibit VII for PSA's international presence**)

Though PSA collaborated with its competitors, it was also sometimes critical of them. For example, PSA criticized some technologies introduced by Toyota. PSA was of the opinion that the Prius gasoline-electric hybrid car introduced by Toyota in the early 2000s was high-priced. The high price resulted in low sales, which it felt didn‟t do much to help the environment. "When you are not satisfying the mass market you are simply not doing the job," said Marc Boquet, a spokesman for PSA. "At PSA we produce advanced technology for everyone."[29]

Though PSA was considered a champion of alliances, analysts felt that competition from its partners in the future might affect its relationship with them. However, other analysts felt that the purpose of alliances was to lower costs and risks and PSA was certainly reaping these benefits. Carlos Ghosn, Chief Executive, Renault talking about his company‟s alliances once said, "It (entering into alliances) doesn‟t mean that people will be complacent of each other. We‟re still competitors, and competing heavily. But at the same time we are business people. That means when an agreement makes sense it has to be done."[30]

In October 2005, PSA announced that its operating profits for the year 2005 would be little less than 4% of sales (PSA traditionally enjoyed operating profits of close to 4.4% of sales). In January 2006, the company announced a second profit warning which put the operating profits at 3.4% of sales (**Refer Exhibit VIII for PSA's financials**). PSA saw its sales in the European market slide by 2.7% in 2005 (**Refer Exhibit IX for PSA's worldwide sales and production**).

The 2005 full-year report, which was released in February 2006, showed a 37% drop in net profits compared to 2004. Intense competition (**Refer Exhibit X for estimated market shares in 2005, and Exhibit XI for general information on the world automobile market)**, a gloomy European economy, rising prices of gasoline, and an unfavorable product range were cited as reasons.

OUTLOOK

The Peugeot 207 (**Refer Exhibit XII for a photograph of the Peugeot 207**) was unveiled in early 2006, and was a successor to Peugeot 206 – the company‟s most popular car ever. In 2005, PSA had launched several models including the Peugeot 407 (saloon), the 407 coupe, the 1007 - a small car with electric sliding doors, the 107, the Citroën C1 city car, and the Citroën C6 luxury limousine.

[28] In the first half of 2005, with 10.9% and 9.25% market shares, GM and Volkswagen (through their joint ventures), were the market leaders (in terms of sales) in the Chinese automobile industry.

[29] James Kanter, "Toyota leads Asia drive in Europe," www.iht.com, July 23, 2005.

[30] Jon Madslien, "French car maker takes on the world," www.bbc.co.uk, October 9, 2002.

In January 2006, PSA launched a new fuel cell called „Genepac". Genepac was considered a major step in fuel cell technology because it could power a car for a distance of upto 500 kms, which was much more than all other fuel cells available in the market. However, it suffered from most other drawbacks that made fuel cells unviable. The 80 KW cell was the size of a large suitcase which made it difficult to use in ordinary passenger cars. Moreover, the cost of manufacturing the cells was too high. PSA was conscious of the problems but felt that the technology had potential. Folz told a news conference, "This technology is still at its early stages but offers a real answer for the future."[31] The company promised that it would try and halve the price of the cells by 2010. It would also make efforts to make the cell more compact.

PSA"s explicitly stated policy of cooperation and collaboration with independent auto companies was seen by the company as the best way to counter the challenges posed by globalization and its larger competitors. At the same time, the company was making sure that it secured competitive advantages by going solo on several vital research projects. This dual strategy had obvious advantages. At one level, PSA reaped benefits such as higher margins, lower development costs and lower time to market new models. In Folz"s words, "These "win-win" agreements allow us to share development and production costs without renouncing our independence, and to pool skills and expertise. They also generate the economies of scale we need to be competitive, by speeding our development and increasing production capacity. In addition, such co-operations offer many opportunities to learn about each other"s culture and processes."[32] At another level, the strategy allowed PSA maintain its lead in technology and thus enhance its competitiveness.

[31] "PSA Peugeot Citroën unveils small fuel cell," www.fuelcelltoday.com, January 10, 2006.

[32] "Citroën: Strength through co-operation," www.citroen.com, July 11, 2005.

Exhibit

A. Peugeot Logo

B. Citroën Logo


Source: www.psa-peugeot-citroen.com

Exhibit 15

New Model Launches between 1977 and 2005

Year	Models	Year	Models	Year	Models
1977	Peugeot 305	1986	205 convertible, 309 GTI, Citroën AX	1998	206, Partner Electric, Xsara Coupe, Xsara Estate, Berlingo Electric
1978	Citroën Visa, Simca Horizon	1987	405	1999	206 S16
1979	505, 604 turbo diesel	1989	605, Citroën XM	2000	Xsara Picasso, 607, 206 CC
1980	305 Station Wagon, 505 turbo, Talbot Solara	1991	106, Citroën ZX	2001	307, C5
1981	Peugeot J5, Samba, Tagora, Visa II, C25	1993	306, Citroën Xantia	2002	206 SW, 307 SW, 307 Estate, 807, C3, C8
1982	Citroën BX, 505	1994	806, 306 Convertible, Citroën Synergie, Relay	2003	307 CC, Citroën C2, C3 Pluriel
1983	205	1995	406, 106 electric, Peugeot Expert, Citroën Xantia Activa, AX Electric, Jumpy	2004	407
1984	205 GTI	1996	Citroen Saxo, Berlingo, Saxo Electric, Peugeot Partner, 406 Estate	2005	107, C1, 1007, 407 Coupe
1985	309, BX Estate	1997	306 Estate, 406 Coupe, Xantia LPG, Berlingo Multispace, Xsara		

Source: www.psa-peugeot-citroen.com.

Exhibit 16

Region-wise Sales* of PSA in 2005

Region	Sales (in Units)
France	777,000
Other Western European countries	1,583,400
Central Europe & Turkey	209,700
Africa	83,600
The Americas	194,500
Asia-Pacific	511,900
Other	29,800
TOTAL	**3,389,900**

** - Sales include passenger cars and light commercial vehicles.*

Source: www.psa-peugeot-citroen.com.

Exhibit IV

List of Models

As of February 2006

Peugeot	107, 206, 206cc, 207, 307, 307cc, 407, 607, 807, 1007, Partner Combi
Citroën	C1, C2, C3, C3 Pluriel, C4, C5, C6, C8, Berlingo, Xsara Picasso

Source: www.peugeot.com and www.citroen.com.

Exhibit

Some Strategic Alliances in the Automobile Industry

S. No.	Companies	Year	Remarks
1	Fiat Auto & Tata Motors	2006	Tata Motors was to manage distribution and after-sales service for Fiat in India. Fiat, in turn, would provide access for Tata Motors to world markets.
2	Fiat Auto & Suzuki	2005	Fiat Motors and Suzuki co-developed a SUV. Suzuki was to use Fiat‟s 1.9 l diesel engines for its version of the SUV.
3	Nissan & Mitsubishi Motors	2000	Integration of forklift business of both companies –from product development to marketing.
4	Fiat Auto & General Motors	2000	Share engines as well as platforms and pool purchase and finance operations in Europe and Latin America.
5	Toyota & General Motors	1999	Joint research on fuel cell technology, joint operation of auto manufacturing plant in California.
6	Suzuki & General Motors	1987	Joint establishment and management of a company in Ingersoll, Canada. The objective of the alliance for Suzuki was to gain entry into the North American market, while GM attempted to gain insights into Japanese manufacturing methods and management.

Compiled from various sources.

Exhibit 18

Making Alliances Work

The success of an alliance depends on three main factors: partner selection, alliance structure and the way in which the alliance is managed.

Partner Selection: The choice of partner can make or break the alliance. In other words, the strength and success of the alliance depends to a large extent on the partner‟s characteristics. A good partner helps an organization achieve its strategic goals which could be to share costs, risks, investment concerning new product development or gain access to technology. Secondly, a good partner would have similar expectations from the alliance. And thirdly, a good partner would not exploit the alliance unfairly.

Alliance Structure: The structure of the alliance also has a bearing on the success and duration of the alliance. Issues such as percentage of ownership, mix of financing, technology and machinery to be contributed by each partner figure prominently. The alliance should be designed in such a way that it is difficult to transfer technology that was not part of the agreement. Contractual safeguards should be included in the alliance to guard against risk of opportunism by a partner.

Managing the Alliance: The management of the alliance should be based on mutual trust. This can be achieved by building interpersonal relationships between the managers/workforce of the partners. A major determinant of success of an alliance is the ability of partners to learn from each other. In most cases, learning takes place at the lower levels of the organizations. Therefore, the lower-level employees must be informed about the partner‟s strengths and weaknesses and also made to understand the importance of learning particular skills from the partner so as to improve the competitiveness of the organization.

Adapted from Introduction to Business Strategy, ICMR.

Exhibit 19

PSA's Worldwide Production Sites

Country	Production Site	Output (2004)
Brazil	Rio de Janeiro	50,000
Argentina	Buenos Aires	70,000
United Kingdom	Ryton	1,80,000
France	Rennes	2,92,000
	Sevelnord	1,62,300
	Mulhouse	3,79,100
	Sochaux	4,30,000
	Poissy	3,02,400
	Aulnay	4,18,380
Portugal	Mangualde	53,450
Spain	Madrid	1,38,100
	Vigo	4,58,550
Italy	Val di Sangro	1,83,195
China	Wuhan	1,41,000#
Iran^	Tehran	2,93,000
Morocco^	Casablanca	8,000
Indonesia^	Jakarta	500
Turkey^	Bursa	n.a
Nigeria^	Kaduna	n.a
Egypt^	Cairo	n.a
Czech Republic	Kolin	1,05,000+
Slovakia*	Trnava	n.a

*^ - assembly plant, * - will start operations in 2006, # - 2005 figure.*

N.A. – Not Available.

Source: www.psa-peugeot-citroen.com.

Exhibit 20

Financial Data of PSA Peugeot Citroën Consolidated Sales and Revenue

(In million Euros)

	2004	2005
Automobile Division	45,239	45,071
Banque PSA Finance (car finance company)	1,601	1,656
Gefco (transportation & supply chain management company)	2,894	3,000
Faurecia (automotive equipment company)	10,719	10,978
Other businesses	899	709
Inter-segment eliminations	(5,247)	(5,147)
Total	**56,105**	**56,267**

Consolidated Financial Highlights

(In million Euros)

	2004	2005
Operating margin	2,481	1,940
Profit before tax and share in net earnings of companies at equity	2,439	1,530
Consolidated profit	1,680	990
Profit attributable to equity holders of the parent	1,646	1,029

Financial Position

(In million Euros)

	2004	2005
Working capital	4,561	4,133
Gross capital expenditure	2,804	2,873
Equity	13,703	14,406
Net financial position of the manufacturing and sales companies	1,347	381
Number of employees	207,600	208,500

Source: www.psa-peugeot-citroen.com.

Exhibit 21

Worldwide Sales and Production of PSA

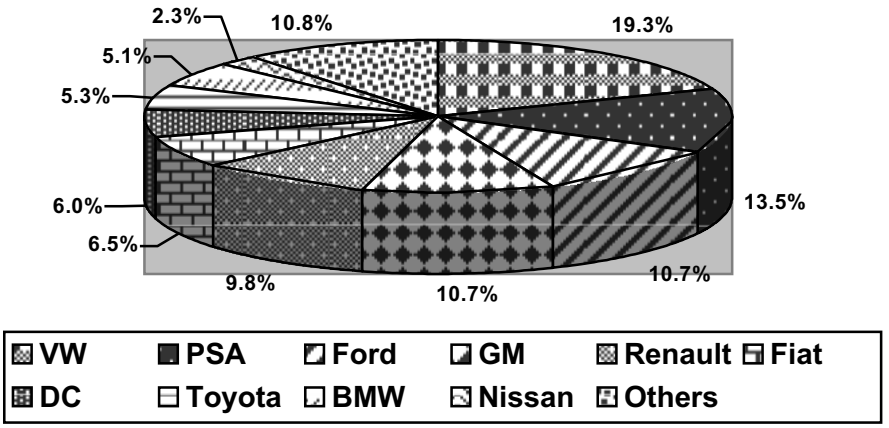
(Number of vehicles)	**2004**	**2005**
Worldwide unit sales	3,375,300	3,389,900
Worldwide production	3,405,100	3,375,500

Source: www.psa-peugeot-citroen.com.

Exhibit X

Europe Automobile Market Shares in 2005

(Based on volume)



Compiled from various sources.

Exhibit XI

World Automobile Market in 2005

In 2005, the worldwide automobile market grew by 3.2% to 68.2 million passenger cars and light commercial vehicles. However, there was a marked difference in sales growth rates among different regions of the world. Owing to sluggish economic growth in several countries, the European automobile market shrank by around 3%. In Central and East European market, after peaking in early 2004, there was a sharp decline in 2005. Registrations in Poland slid 23.5% and sales in Hungary slipped by 4.2%. The US market showed growth with annual sales reaching 16.9 million units. The Canadian market grew by 3% to reach 1.58 million units. In Asia, the market expanded by 6.4%. The Latin American market rebounded with Brazil registering a healthy 9.5%. Argentina recorded a growth rate of 35.2%.

Car Sales and Sales Growth in 2005 in Major Markets

Region	Sales in 2005 (In million units)	Growth (% over previous year)
USA	**7.60**	**1.4**
CANADA	**0.84**	**3**
EUROPE	**15.22**	**-0.7**
CHINA	**2.85**	**26.5**

Compiled from various sources.

Estimated Passenger Vehicle Sales by Company in Europe

Manufacturer	2005 Sales (In million units)	2004 Sales (In million units)
Volkswagen	2.944	2.853
PSA	2.061	2.122
Ford	1.628	1.686
GM	1.625	1.637
Renault	1.487	1.569
Fiat	0.988	1.129
DaimlerChrysler	0.914	0.922
Toyota	0.818	0.787
BMW	0.779	0.710
Nissan	0.357	0.381
Hyundai	0.317	0.313
Honda	0.259	0.236
Kia	0.242	0.173
Suzuki	0.234	0.204
Mazda	0.233	0.255
Mitsubishi	0.133	0.123
Others	0.195	0.225
Total	**15.222**	**15.332**

Compiled from various sources.

Exhibit XII

A Photograph of the Peugeot 207


Source: www.peugeot.com.

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