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DOES CSR ENHANCE MARKET PERFORMANCE FOR AUTOMOTIVE COMPANIES?

Theoretical article

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Abstract

This paper aims at analyzing the role of strategic CSR in creating stable long term performance in the automotive industry. The first part of the paper reviews the success factors for the European auto industry and analyses the influence strategic CSR has on these factors. In order to illustrate the relation between strategic CSR activities and the economic performance, the paper presents the strategic evolution of one of the most ancient motor companies on the international scene, namely Peugeot and evaluates the innovative ideas brought into the market, as well as its future prospects. The PSA Group holds a position of European leader in terms of CO_2 emissions, with an average of 110.3 grams of CO_2/km in 2014. The PSA Peugeot Citroen Group's strategy is being increasingly oriented towards environmental protection and energy saving.

INTRODUCTION

In the last years, European automotive industry has passed over a difficult period, with the European car market decreasing for six years consecutively, from 2008 to 2013, but with a slight recovery from 2014 till present. This situation put pressure on companies to reorganize their operations, and several producers announced the closing of some assembling facilities, leading to losses of work places. At the same time, European industry continues to confront the medium and long term challenge to remain a leader in providing future mobility solutions in an extremely competitive global environment (European Commission, 2012).

Competition in the automotive industry is characterized by overcapacity, high market saturation, high labor and fixed costs, and the need for constant product development and innovation. The market is characterized by mergers, leading to a domination of few global players, creating major entry barriers. Due to the high motorization rate in Europe, demand is mainly based on replacement. This has led to shorter product life cycles and to the constant need to differentiate brands and models. Low profit margins determine automotive producers to extend after-sales services, in order to improve profitability (Martinuzzi et al., 2011).

European automotive sector growth has stood on the demand from new member states, while the demand in Western European countries has been quite constant in the years following the crisis. In the future, the main demand is expected to come from emerging markets (China, India, or Russia) where European manufacturers already have significant presence (European Commission, 2009a).

COMPETITIVENESS OF EUROPEAN AUTOMOTIVE SECTOR

In its latest communication "Responding to the Crisis in the European Automotive Industry", the European Commission has identified *investments in R & D and innovation* for developing "green" cars as essential. While productivity and labor costs could boost the competitiveness on short term (factors that seem more favorable in Japan and in the USA), innovation is the key factor in the long run (European Commission, 2009b).

European firms, which are global technology leaders (also because of a demanding home market) have to continue innovating and investing in R&D to remain competitive. Its strong supplier base and strict regulatory standards for environment and safety may further support the innovation processes (Eurostat, 2009). On the contrary, according to Donnelly et al., (2002) the European automakers responded to global competition challenges by costs reduction, shed labor, rationalizing plants, raising productivity, and improving their relationships with suppliers. Yet the European industry is at the forefront in terms of technology because the leading brands can practice cost recovery (in contradiction to cost reduction) on a market where customers are willing to pay more for the brand, exclusivity, and marginal gains via innovation.

The role of innovations in the automotive industry was scrutinized by Tseng and Wu(2007) who developed five indicators of innovation quality and compared 17 global automobile firms by means of these indicators, whereas three of the indicators (patent count, citation-weighted patents, scope of innovations) positively and significantly affect firm profits.

The European demand almost entirely consists of replacement purchases. This pushed car makers to provide products with high degree of differentiation and to dramatically shorten the product life cycle. To keep their market positions, car producers must be able to offer a new or better car with innovative solutions at any moment that the client makes a decision to replace the old product(Orsato, Wells, 2007b; Volpato, Stochetti, 2008).

Therefore, some authors recognised *brands and mergers* as the most important competitiveness factors in the automotive industry. Wells and Morreau (2005) give an overview of car brand names, models, body styles and variants in the UK market in 1994-2005 periods. The number of brands remained constant, while the number of models rose from 205 to 323, number of different body styles increased from 300 to 376 and number of variants from 1303 to 3155 (which also undermines economies of scale). Similar results were obtained by Volpato and Stochetti (2008), that overviewed the Italian market (1984-2006 period). The emergence of international mergers and alliances can be explained by excess capacity, economies of scale and access to global markets (Fai, Morgan, 2007).

The importance of the differentiation strategy was stressed by Tay (2003), Renard (2002) and Dietl et al. (2009). According to Tay (2003) there are three parameters by which *differentiation* can be expressed: quality, cost/value relation, and timeliness. The traditional measures of quality are reliability, durability, noise, vibration, and harshness control. But they are no longer sufficient enough. Other quality factors crucial for car makers are: safety, use of electronics and their applications, new energy sources, etc. Cost/value refers to the relationship between providing a high value products to consumers and reducing costs both linked with product design as well as with service and maintenance costs. Timeliness simply means

delivering a new product to the market faster than other competitors. For example, leading Japanese automakers such as Toyota or Honda have the capacity to roll-off new models from their assembly lines in 12 months or less.

However, the latter concluded that it will no longer be a sufficient source of long-term competitiveness, as *distribution* and complementary services (in finance and after-sales) are becoming much more important. The importance of distribution is increasing due to fierce competition resulting from the rising number of players, innovative sales channels, and the new balance of power between the traditional franchised dealers and the vehicle manufacturers. Another factor strengthening the role of distribution stems from the fact that the automotive industry is characterized by low profit margins, due to two factors.

The first factor is the imperative of economies of scale, 250 000 cars per model and year being considered a minimum outcome bringing profitability (Bremmer, 2000). The second factor is manufacturers' inability to capture profits generated by the whole life cycle of a car, car producers having to increase their profit margins by engaging in after-sales activities (Orsato, Wells, 2007b).

Martinuzzi et al. (2011) reviewed the literature on auto sector's competitiveness since 2002 to 2010 and briefed the success factors for this sector:

- ✓ Innovation, improved environmental performance
- ✓ Manufacturing excellence, value-added of product, market expansion, financial returns, and intangible values
- ✓ Superior environmental performance
- ✓ Network resources, knowledge-sharing initiatives between supplier and manufacturer
- ✓ Brand distinction, supplier integration, protection of technological innovations, valuable complementary services in finance and after-sales
- ✓ Factor conditions in the home market, strong and dynamic supporting industries, demanding customers
- ✓ Minimization of costs and maximization of differentiation
- ✓ Product life cycle, product differentiation
- ✓ Degree of differentiation, shortening product life cycle
- ✓ Product innovations, high-quality products
- ✓ R&D, "green" innovations
- ✓ Emergence of international mergers and alliances
- ✓ Innovations indicated by patent count, citation-weighted patents, scope of innovations
- ✓ Green manufacturing
- ✓ Managerial resources and technology capabilities
- ✓ European automakers' reactions to increasing global competition
- ✓ Supply chain management
- ✓ Organizational learning
- ✓ Contribution of supplying industry, "Partnerships for Innovation"

However, European car producers face a challenge in terms of competitiveness based on costs in these markets- Europeans have higher labor costs and are subjects of stricter regulations (European Commission, 2009a).

Thus, according to the European Commission, the main driver for competitiveness in the global automotive sector will be technological competition, especially in terms of fuel and energy developments, in which the European automotive industry is already well positioned.

PROACTIVE STRATEGIC CSR AND INNOVATION

The integration of CSR as a strategic component creates value, novel ideas and opportunities leading to stable long term performance. This 'Innovative CSR' is the key to strategic CSR and to creating new values for various stakeholders and shareholders (Louche, Idowu, Filho, 2010).

Also, the European Commission stated that CSR is a fundamental driver of innovation and the definition of CSR was formulated as "the responsibility of enterprises for their impacts on society" with the aim of "maximizing the creation of shared value for their owners/shareholders and for their other stakeholders and society at large" [European Commission 2011]. Therefore the most important shift lies in the purpose of CSR that appears to be value maximization. Also, the document proposes to achieve it by the adoption of a long-term attitude to CSR and the introduction of innovative products, services and business models. This new definition encompasses the philanthropic or branding role of CSR and follows the trend developed in recent years that CSR needs to be linked to the modification of business models and concentration on innovation [Visser 2010]. In other words, companies should implement innovative production to transform the impact of its business activities on society.

Asongu (2007) found evidence that innovation should be considered a valid argument for CSR, along the lines of the four traditional arguments for social responsibility – moral, reputation, license-to-operate, and sustainability.

An increasing number of scholars and policy makers also started to argue that stricter environmental regulations actually enhance the competitive position of firms by making them more

innovative. Stricter environmental regulations lead firms to conducting more research and development (R&D) activities and, consequently, to produce more innovation in the long run by re-examining their products and production processes carefully (Porter, Kramer, 2011).

Innovation strategies can be classified, according to literature, in technical innovation (of products and/or services) and non-technical (organizational, market innovation). Technical innovations connected to environmental strategies have the goal to increase the number of products and services with enhanced environmental features, by integrating sustainability and "life cycle assessment" analysis in the activity of product design, without affecting the quality, the price or the market performance. For example, hybrid vehicles, electric vehicles, clean diesel vehicles, bio-fuel and more are all products that are based on CSR-based innovation. The goal of sustainable technical innovation is to delivery high levels of emotional and functional value, concomitantly with the minimization of resource consumption and environmental impacts.

Fundamentally, CSR can be assessed as a co-specialized asset that enhances the firm's overall reputation or enhances resources and capabilities [McWilliams, Siegel, 2010]. This is especially the case when CSR-based innovation occurs. Strategic CSR referring to innovative considerations has been assumed to create significant relevance to profitability today providing win-win outcomes demonstrating opportunities for increasing firm value. In this sense, Kim and You (2013) argue that strategic CSR derives opportunities of innovation to play a significant role for the assessment of performance.

Nevertheless the relation between CSR and innovation has gained academic attention only over the last decade. Innovation was made a key to understanding the linkage between CSR and a company's social and financial performance [Visser 2010]. Nidumolu, Prahalad and Rangaswami [2009] pointed out conclusively that CSR is a fundamental driver of innovation. Scientific evidence exists, that companies strong in CSR compliance were in most cases highly innovative. Moreover Rexhepi, Kurtishi and Bexheti [2013] argued that nowadays CSR and innovation are the foundation of business competencies. There is a mutual relation between CSR and innovation, and the assumption that innovation is a driver of CSR policy was confirmed [Norwegian Ministry 2009].

Ratajczak, Szutowski (2015) include the industry type (innovative and non-innovative as well as CSR-intensive and CSR-non-intensive) as a variable that moderates the relation between CSR and innovation. This variable is relevant because the social problems and innovative opportunities in different industries can vary widely.

In the CARS report of European Commission, European financing that stimulates the development of clean transport technologies were identified as a main instrument to get over the crisis and to face rival pressure with regard to technological advance.

The challenges surrounding issues of sustainability and its implementation are strongly felt in the automotive industry. There is a clear need for company action, and at the same time, there is also wide recognition that sustainability offers considerable potential. Some stakeholders, such as political and social agents, are demanding cars that are more eco-friendly (e.g., reduced CO2 emissions, alternative power trains and new mobility concepts). Other stakeholders, such as customers and employees, are demanding business behaviors and activities that are more sustainable (e.g., labor safety, salaries, cleaner production)(Sukitsch, Baumgartner, 2015).

Nowadays, automobile manufacturers are aggressively initiating strategic CSR imperatives that would trigger competitive advantage to create long term values. In this industry, an age of competition for strategic CSR has begun (Kim, You, 2013).

Among the already known critical success factors to be met, such as the product quality and innovation, minimized production costs, organizational flexibility to comply readily with the market evolution, it seems that, as compared to the past, international manufacturers are increasingly oriented to favor technological research, aimed on one hand, at protecting the environment through reducing CO2 emissions and, on the other one, at dramatically reducing fuel consumption during the current serious energy crisis.

The latest economic challenges and the high costs to be borne to renew the industrial plants in compliance with the environmental regulations as well as to design products that are able to meet the consumer's changing needs led motor companies to reorganize their competitive strategies with growing attention, as compared to the past, to a kind of strategy oriented to "innovation and flexibility", allowing the design of new high technology products that are environment-friendly and energy saving with low selling prices compared to the quality offered.

In particular, these goals can be achieved by implementing such strategies as those pursued by some producers in recent years: significant mergers with other car companies aimed at combining their individual capabilities in order to properly widen the range of products offered; production relocation to emerging countries in order to profit from low costs of raw materials and labor to minimize production costs; boosting

research and development to design cars that are able to run with alternative energy sources; re-launching neglected brands through creative promotional campaigns that are likely to stir up new emotions in the consumer.

CSR, INNOVATION AND MARKET PERFORMANCE: THE CASE OF PEUGEOT

In order to illustrate the relation between strategic CSR activities and the economic performance, in the present work we analyze the strategic evolution of one of the most ancient motor companies on the international scene, namely Peugeot and evaluate the innovative ideas brought into the market, as well as its future prospects. The paper is going to assess whether the strategic choices made are able to meet the above-mentioned successful factors in the auto industry.

With its three world-renowned brands, Peugeot, Citroën and DS, PSA Peugeot Citroën sold 3 million vehicles worldwide in 2014. The second largest carmaker in Europe, PSA Peugeot Citroën recorded sales and revenue of €54 billion in 2014. The Group confirms its position of European leader in terms of CO_2 emissions, with an average of 110.3 grams of CO_2/km in 2014. PSA Peugeot Citroën has sales operations in 160 countries. It is also involved in financing activities (Banque PSA Finance) and automotive equipment (Faurecia).

Peugeot (PSA Group), ranked the tenth in the world by number of sold vehicles in 2015, achieved 2,833,781 units sold around the world.

Peugeot is the world's only manufacturer to market a complete mobility offering with passenger cars and LCVs, scooters, bicycles and a wide range of services including the Mu by Peugeot mobility solution.

The French manufacturer group, as well as its main competitors, is facing decreasing revenues in Europe. In 2011, Europe's revenues were about 72,9%, decreasing to 65,8% in 2013, despite being the most important market. In an opposite way, in other geographical areas the importance is growing up during the same period, like Russia, Asia and Latin America. In addition, the highest rising came from Asia with 61,7% variation from 2011 to 2013. Following the goal to save economic resources, the PSA Group implanted factories closer to its end markets.

The environment in which PSA operates involves:

- increasingly stringent regulatory and safety constraints: the convergence of CO2 targets on all core markets, the tightening of anti-pollution standards;
- strong pressure from other market players;
- customer needs transformed by new technologies.

(Löffler, Decker 2012) established the market patterns that brands must follow in order to survive inside the market and stimulate customers' overall perception: bigger cars (in every segments), price promotions, future benefits to the customer like free maintenance during a certain amount of years, engines' efficiency, launching models in fast-growing segments (mainly Crossovers in various segments and SUVs), new technologies investment (GPS, parking cameras or raining sensors) in the smaller cars, safety investments (more and more efficient airbags), connectivity, lightweight materials, design, new energy cars, multi-channel communication.

From these trends, the top 5 of the automobile car sector are the efficiency, lightweight materials, design, connectivity and new energy cars (Santos, 2015).

In an industry where model line-ups have become much more diversified, innovation is the main way to create the competitive advantages so critical to driving growth.

Innovation, research and development are, therefore, priorities for PSA. They are a powerful lever for addressing such core auto industry challenges as changing standards and legislation, rising environmental awareness, emerging mobility and networking needs and product appeal to create competitive advantage.

In 2007, PSA Peugeot Citroen Group decided to pursue, by means of its strategies, the goal of sustainable development, implementing a plan called "10 sustainable development objectives for 2010-2011" in four areas, namely environment, social responsibility, governance and society [Bourassi, 2010].

The PSA Peugeot Citroen Group's strategy is being increasingly oriented towards environmental protection and energy saving.

Corporate Social Responsibility. PSA has a number of CSR policies. The social component of CSR is covered by an ethics code and a framework agreement signed between PSA, the International Metalworkers' Federation (IMF) and the European Metalworkers' Federation (EMF). PSA also has an environmental policy and publishes an annual CSR report. PSA is a member of the UN Global Compact and explicitly committed to the main international standards.

PSA has a sustainable development department, which is positioned between the executive committee and the functional and operating divisions.

In pursuing the goal of social responsibility, since 2003, the Group has been part in the agreement called Global Compact, providing for the Universal Declaration of Human Rights, the

Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment, the United Nations Convention against Corruption and, since 2009, the United Nations initiative called "Caring for Climate".

Every subsidiary has pledged to support the Global Framework Agreement on Social Responsibility. In 2006, PSA Peugeot Citroën published supplier guidelines for its social and environmental responsibility requirements. The 1,000 largest suppliers, accounting for around 95% of PSA's worldwide purchases were asked to commit to the standards. At the end of 2008, 71% of worldwide purchases were covered by a supplier agreement. These agreements include principles on human and labor rights, as well as the environment.

The last requirement included in the guidelines concerns 'supplier relationships with its own suppliers', stipulating that:
'The Supplier is obliged to obtain from its own suppliers an agreement similar to the one it is signing with PSA Peugeot Citroën through this document.'

Targeted audits are conducted for suppliers deemed to be 'at risk'.

PSA Peugeot Citroën (Paris:UG) is the only carmaker included in the Euronext Vigeo World 120 index at 1 December 2015. The index comprises the world's 120 highest-ranking companies in terms of corporate social responsibility (CSR).

Following a nearly six-month evaluation process, socially responsible investment (SRI) rating agency Vigeo has announced that PSA Peugeot Citroën's CSR performance rating has risen to 61.56/100 from 57.88/100 based on the previous evaluation in 2013.

Research and Development. At PSA Group, in the Automotive Division, the Research and Development Department reports to the Executive Committee. It carries out the Group's technological innovation work with 10,200 employees in Europe, in addition to the R&D teams in China and Latin America, obtaining a number close to 2,700 and 630 employees respectively, i.e. over 13,500 employees mobilized around the world. The Research and Development Department focuses on three main areas:

- reduction of environmental impacts, in particular greenhouse gases: to meet the challenges of the climate, the depletion of fossil fuels and changing lifestyles;
- design, concept and styling for flawless perceived quality;
- services, by working -with the Marketing Divisions of the PEUGEOT, CITROËN and DS brands as well as the business unit dedicated to connected services and mobility, to think through the future of connectivity and mobility (multi-modal transport and onboard intelligence), the autonomous vehicle.

The R&D Division coordinates and implements the eco-design process, particularly through life cycle analysis and monitoring the use of green or recycled materials: data are collected from engineering divisions and suppliers for each vehicle project. All the Group's vehicles are at least 95% recyclable and comply with all the applicable regulations.

The R&D Department also supports the Group's globalization through three main centers (Europe, China and Latin America), which develop and adapt PSA's style and technologies to the specific characteristics of each region. Europe is the focal point of the Group's R&D, where most of the teams are located (78%), primarily in France.

The Programmes Department continuously monitors implementation of the solutions chosen throughout the development of vehicle projects and measures their efficiency: usage rate of green materials, CO2 emissions, etc. A special unit is responsible for coordinating the Group's CO2 programme. This monitors and reports on the emissions performance of vehicles developed by the Group.

A special department monitors the Group's ELV (end of life vehicles) policy and its recycling and recovery performance.

PSA Peugeot Citroën introduced its Green Materials (recyclable, recycled, bio-sourced) programme as early as 2008 in order to reduce the proportion of plastics with fossil origin used in its vehicles. The Group is aiming to remain in the lead in this field, with an average of 30% of green materials per vehicle by 2015. These new materials are selected according to the strictest quality and safety criteria (http://www.psa-peugeot-citroen.com/en/automotive-innovation/clean-car).

The Group is also taking steps to make its vehicles compatible with alternative fuels. Its diesel engines can use fuel containing up to 30% of biodiesel, while all its petrol engines are compatible with fuels containing up to 10% of ethanol. Self-adapting, so-called flex fuel vehicles have been developed in Latin America, so that they can run on both conventional petrol and pure alcohol.

PSA Peugeot Citroën's role as an environmental pioneer was recognized on 4 February 2013, when it received the ECOBEST 2012 prize for its broad range of technologies designed to improve the environmental performance of its vehicles.

Peugeot - brand repositioning

From 2014 with the "Back In The Race" global strategy that is being implemented, the PSA Group plans that all three brands have a positioning and a proper mission in the market: Citroen

competing in the medium-low generalist brands' market, Peugeot in the premium generalist and DS in the high-premium brands' one (niche market).

Known by the 'Moving Up-Market' strategy and characterized for being a very complex and coherent changing, these repositioning occurred with many other variables (Scalera, 2015).

For the new brand's repositioning, some changes became central in this mission:

- Large investments are being done in the global renewal of Peugeot's engine range, replacing the existing models for similar ones but more environmental friendly, with increased performance, lower consumption values and reduced pollutant emissions.

Other investment is also being done, where a new technology called HYbridAir is being developed in order to show only 2L/100km consumption, about 40% less than a regular car with the same characteristics.

As regards the first issue**,** they focused on the following: the drastic cut in carbon dioxide emissions below the threshold of 120 grams of CO2 per km., which allowed a sale of about two million vehicles in the period 2007-2010; the development of eco-design aiming at using the massive percentage of green materials (i.e. recycled organic materials, natural materials, polymers that do not come from the petrochemical industry); the construction, in 2011, of vehicles having a polymer content of 20% and, finally, the environmental management aiming at reducing the energy consumed for each car to be produced.

- The importance of a good management communication is also highlighted in the example of Peugeot, the French car company. Peugeot is the second largest car manufacturer in Europe and boasts very good internal communication. It places great emphasis on interaction between management and the internal stakeholders of the company.

PSA Peugeot Citroën distinguishes itself by a link on their homepage which leads to a second web site completely dedicated to sustainable development and to the empowerment of the company.

The 'Motion and Emotion' slogan entered in the Peugeot's quotidian expressing the new basics of the brand: allusion to the good driving experience and feelings as well as the pleasure while driving it. It can be also understood by investing in new technologies, as well as appealing the people's feelings, attracting them by new models' visual signature and global quality. These arguments allow pushing the brand into the new desired positioning in the market, leaving behind a neutral generalized brand associated to a generalist brand (Santos, 2015).

The new advertising campaign has the "Motion & Emotion" message, the company's focus being on the emotional side of the cars produced, on respecting the environment, which has increasingly become a critical success factor to be met to ensure competitiveness as well as on the search for solutions to achieve a complete urban mobility, through the production of cars as well as of commercial vehicles, scooters and bicycles. Another point on which the Group's strategy has focused is the variety of the range, with the production of 14 new environmentally friendly models since 2012, to meet the demands of both Western consumers and emerging countries that have become increasingly demanding [Gemelli, 2010].

Accordingly to the repositioning strategy of Peugeot, the entire range has been renewed in every market the brand is present. Peugeot upgrades its models, on average, every 3.2 years, being one of the youngest of the market:

- *The 108 range*, the new urban city car. This car promises to be a good bet for those who value a quality small car, with an attractive design that offers a differentiation argument: the possibility to be personalized to each customer's taste, from the retractable roof, to the interior seats and also thematic stickers that can be added both in the interior and exterior of the new city car.

- *The 208 range*, one of the best references in the B segment and the currently "best-seller" of Peugeot.

- *The 2008 Crossover range*, registered higher orders than previously expected from Peugeot, becoming the second player in its segment in just one year.

- *The 308 range*, the materialization of Peugeot's new era. This model translates the intention of Peugeot for the near future. A match between quality, design, comfort, technology and safety was achieved and the public grasped the idea. The results have been really positive for the brand, illustrating Peugeot's bet into this "turning point" vehicle.

- *The 3008 Crossover range*, good for its typology, mixes the Familiar car and the SUV (Sports Utility Vehicle). Being the number one in its segment and the first one entering this relatively new segment, it collects fans since its birth. The Peugeot 3008 HYbrid4 was launched in the European market in 2012, becoming the world's first production diesel-electric hybrid. According to Peugeot the new hybrid delivers a fuel economy of up to 62 miles per US gallon (3.8 L/100 km; 74 mpg_{-imp}) and CO_2 emissions of 99g/km on the European test cycle.

- The latest model introduced is the *new 508 range*, composed by the Berlina (4-doors), SW (Station Wagon) and RXH (characterized by being a SW off-road prepared with an Hydrid engine). This range is mostly targeted at B2B (business clients). This pioneer 508 RXH model, mixing a

Diesel and an electric engine, resulted in economical consumes and reduced pollutant emissions.

The Group is pursuing a number of paths to offer low carbon vehicles for each type of use. These include:

- the reduction of fuel consumption and emissions by all types of engines (petrol and diesel internal combustion engines, hybrids and electric vehicles), in particular thanks to innovations that have already been widely deployed right across the range, such as Stop&Start, which the Group has pioneered since 2003,
- improving aerodynamics and reduced rolling drag,
- making lighter vehicles,
- using green materials (recyclable, recycled, bio-sourced) and new materials,
- the integration of low energy-consumption technologies into all the vehicle's functions (air conditioning, lighting, etc.),
- and the exploration of new energy sources.

The main focus of the Marque's environmental policy is to continuously optimize its combustion engines through downsizing, but also to develop new-generation engines such as the EB petrol engine family (three-cylinder 1.0l and 1.2l), with low consumption/emissions. The first units were fitted on the 208 in 2012. Diesel hybrids are the other main focus of Peugeot's environmental commitment: micro-hybrid technology through the new-generation e-HDi Stop & Start system launched at the start of the year, and now available on the 308, 3008, 5008, 508, Partner Tepee and − soon − on the 208; and full hybrid technology in 2012 with the HYbrid4 drive train, available on three Peugeot models: the 3008 HYbrid4, 508 RXH, and 508 HYbrid4 saloon.

The third area of focus is electric cars in and around the city. After one year on the market, the Peugeot iOn − the first new-generation vehicle in Europe − has enabled the European car Manufacturer Peugeot to strengthen its historic position as a pioneer in this field. Peugeot Scooters launched an electric scooter, e-Vivacity, in 2011.

Today, the Group is ranked in second place on the European electric vehicles market, with more than 6,500 vehicles sold. PSA Peugeot Citroën's electric offering will soon be strengthened by the new Citroën Berlingo and Peugeot Partner electric LCVs, which are ideally suited to city driving

In 2015, 65% of the vehicles the Group markets emitted less than 120g of CO_2/km and 25% will emitted less than 100g of CO_2/km, taking the brand below the 130g/km target set by the European Commission for 2015.

Market performance of Peugeot

In 2012, Premium vehicles accounted for 18% of Peugeot sales. The 508, including HYbrid4 versions, sold 121,000 units, particularly in Europe and China. The 3008/3008 HYbrid4 crossover attracted 109,000 buyers. With almost 40% of sales concerning the higher trim levels, the 208, launched in March 2012 and built in France and Slovakia, is also contributing to the move upmarket.

And China, which since 2013 has become the biggest market for the Peugeot 508, now represents 36 % of sales.

In 2014, the group sold 2 938 372 vehicles, raising by 4,3%. The Hybrid4 technology places PSA on the second place on top hybrid cars sales in Europe.

In 2014 the global sales were up for the first time in four years, to 2.94m, against 2.82m in 2013. Peugeot rose 6% and Citroen 7%, although the 2014 volume, boosted by sales in China, is still 18% below the volumes the group reported in 2010, when it sold 3.6m units.

In 2014, PSA Peugeot Citroën ranked second in hybrid vehicle sales in Europe, with over 50,000 diesel hybrid vehicles sold since their launch. HYbrid4 diesel hybrid technology, launched in a world premiere at the start of 2012, has been introduced on the Peugeot 3008 and 508 HYbrid4, the 508 RXH and the Citroën DS5 Hybrid 4. In Europe, one Citroën DS5 out of three, one Peugeot 508 out of four, and one Peugeot 3008 out of five leaving showrooms now feature diesel hybrid technology.

But the best performance of the year in the European Top 10 was delivered by the Peugeot 308. In December 2014 it ranked at #8 with sales up 76% year-on-year to 15,412. This was the highest European ranking hit by a compact Peugeot since the 307 in July 2006.

The European car market (EU and EFTA) expanded by 8.5% during the first three months of 2015 – including the strongest March in five years – to 3,637,635 new passenger vehicle registrations. All major brands increased sales compared to a year ago with only very minor changes in the rank order of best-selling manufacturing groups and individual auto brands. (Table 1)

In the B-SUV segment, the Peugeot 2008 kept its no. 2 ranking in Europe.

Europe's rebounding car demand is giving Peugeot and the rest of the region's auto makers a lift. In the first three months of 2015, European car sales rose 8.6% over a year earlier, according to ACEA, the continent's auto manufacturers' association. The three Peugeot brands—its namesake, Citroën and DS—grew on pace with the overall market, up 8.7% and held a 10% market share during the first quarter. The region's top auto

maker, Volkswagen AG, posted sales growth of 10% in the first quarter for a 23% share of the European market.

PSA Peugeot Citroën worldwide sales were up to 1.2% in 2015.

Peugeot sales increased by 9.4% to 1,056,000 units, thanks in particular to the excellent performance of the **Peugeot 308** (up 31%), supported by the solid results of the **Peugeot 2008** (up 11% in its third consecutive year of growth) and the **Peugeot 208** (up 10%). The 2008 and 308 were both in the top three of their respective segments in Europe (2015).

Topping the Peugeot's new "8" range, which now becomes the youngest in its history, the Peugeot 508 embodies the brand's ambitions regarding its move up-market, its demanding level of quality and the enhancement of its image throughout the world. Built in France and in China, a total of almost 370, 000 units have been sold since launch. And China, which since 2013 has become the biggest market for the Peugeot 508, now represents 36 % of sales.

CONCLUSIONS

However, the findings show the significant mediating role of technological eco-innovation in this relationship. It means that technological eco-innovation and not proactive environmental strategy allows firms to improve business performance. This suggests that organizational capabilities related to proactive environmental strategy do not necessarily create competitive advantage. What is crucial might be the firm's effort to make effective use of these capabilities in development of technological eco-innovation that actually contributes to better performance. Thus, sufficient orientation of business activities and beyond-compliance behaviors may allow the use of technological eco-innovation to proactively enhance and sustain adequate capabilities and satisfactory business performance.

Our study confirms that technological eco-innovation can successfully contribute to achieving differentiation for environmentally conscious customers. Customer satisfaction and better product quality resulting from knowledge based design and development of eco-innovation can improve firm's operational performance and subsequently its financial performance. This means that through technological eco-innovation firms can not only improve their corporate image and achieve better customer satisfaction but they can also generate increase in market share, profit growth, return on sales, etc. The obtained results suggest that it is even more important for firms from highly polluting industrial sectors. Since the technological eco-innovation reduces environmental impact and improves business performance, this research proves that it simultaneously contributes to environmental and economic pillars of sustainable development.

The auto sector is characterized by a significant reduction in competition fragmentation, as compared to the past, due to mergers between traditionally leading producers, aiming at allowing the realization of synergies ensuring competitiveness.

Among those synergies, a very important one is that aiming at developing the expensive innovation concerning energy saving, in order to introduce either hybrid or electric engine cars, that is increasingly a critical success factor to be met. In fact, the PSA has focused its attention on its image restyling, by redesigning the brand, offering innovative advertising campaigns, a wide and various range of products focused on environmentally friendly and energy saving engines, as well as on an efficient after-sales service with the use of "Mu by Peugeot".

In a very competitive market as the auto market it is difficult to change consumers' perceptions about a certain brand, but PSA Group which was losing power managed successfully to reposition Peugeot brand.

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ANNEXES

Table 1. Peugeot's sales in Europe (2007-205)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Peugeot All Models	1.091.534	995.255	1.006.620	1.015.057	923.371	795.792	736.440	782.883	849.857
Market share	6,95%	6,88%	6,89%	7,29%	6,67%	6,34%	6,01%	6,05%	6,02%