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# ABSTRACT

The basic aim of this paper is to highlight the entire important quality related tool, techniques and standard that is adopted by our case company Renault. The paper highlights on the concept of ISO standard like ISO 9000 which is quality management system, ISO 14000 an environmental management system and ISO 26000 a standard of social responsibility. More over the Six Sigma and Kaizen techniques are also described in this respective paper. This paper is generally designed in order to give a reader clear pictures about the quality efforts made by Renault that is a French automotive company. Renault is adopting all tools and techniques described in this paper like ISO standards (9000, 14000, 26000), Six Sigma and Kaizen. On the basis of this study it can be said that Renault is actively adopting all standards and process improvement techniques and succeed. There recent focus is on sustainable development and social responsibility which are essential of ISO 26000. They are focusing on green and emission free environment by going to electrical vehicles. Finding shows that Renault is professing by adopting these standards and quality improvement techniques.

Key words: ISO 9000, ISO 14000, ISO 26000, Six Sigma, Kaizen, Renault

## INTRODUCTION

Heckl et al., (2010) argued that Total Quality Management, Kaizen and Six Sigma are long term techniques and initiatives to increase the business process and focused on continuous improvement and sustainability. To enhance and meet the expectations of customers products and services quality should be increased and improve on continuous basis thanks to TQM (Prajogo and McDermott, 2005). Companies are gaining success by implementing strategy driven by quality (Sim and Killough, 1998). Several international norms have been developed in order to certify the quality of the products sold. ISO 9000 series focus on Quality Management and organization (ISO website); ISO 14000 series focused more on the environmental impact of the company (Kuhre, 1995); at last, ISO 26000 forces on social responsibility to give the way to organization for sustainable development (ISO website). Top management has tools available in order to implement all these norms. For instance, six sigma approach is adopted by many leaders in the industry to get continuous improvement, profit and customer satisfaction (Kumar et al., 2008). Kaizen is also used to improve and achieve the goal of an organization by developing and improving new processes on continues basis (Brunet and New, 2003).

This paper will introduce the efforts made by the French car manufacturer Renault to settle a good quality within its plants. In a first theory part it will introduce the basics on TQM, ISO and different tools used to reach a high quality then after a small introduction of Renault firm, in the discussion part we will focus on the way Renault has handled all these concepts to become more competitive.

# THEORY

## QUALITY MANAGEMENT

According to Bergman and Klefsjö (2010), quality is the product's (good or service) ability to satisfy or exceed customers' requirements: his needs and his expectations. Regarding the current global environmental concern we can add to this definition the corporate responsibility about its environmental footprint. The problem is that it's not always easy to determine the client's need. Indeed, Kano identifies three different types of needs: unconscious basic needs, expected needs which are easy to identify and excitement needs, also unconscious (Kano, 1995, 2011).

Bergman and Klefsjö (2010) defined eight different dimensions for goods' quality: reliability, performance, maintainability, environmental impact, appearance, flawlessness, safety and durability.

To improve the quality of its product a company not only needs a policy but also needs a very strong management: the Total Quality Management. Bergman and Klefsjö (2010) define "the cornerstones of TQM" thanks to six main values:

- Focus on customer. Don't forget that a company has both external and internal customer. Customer Relationship Management tools are important regarding this value
- Base decisions on facts. Achieving knowledge about variation (Deming, 1993) to be able to distinguish natural variation and process deviations in order to evaluate process performances
- Focus on processes: core, support and management ones.
- Improve continuously. Quality never ends and a mistake is an opportunity to improve
- Let everybody be committed. Give all employees the opportunity to be involved in the decision making and improvement work. Communication, delegation and training are the key words
- Committed leadership. From the top to the field management everybody has to be involved (Bergman and Klefsjö, 2010).

### Norms

ISO 9000 is a set of international standards created by the International Standards Organization (ISO) on quality management system and quality assurance. It is based on 8 principles: Focusing on customer, Using Leadership, Involving People, Approaching by process focusing method, Handling management with a systems approach, Improving continually, Making decision with a factual approach, and Having beneficial relationships with suppliers (Bergman, 2010). All the fields of the company who applies to ISO 9000 must be documented and must be auditable. (Renault Website, 2012)

ISO 14000 is related to environmental management that exists to help organizations to minimize how their operations affect the environment and to comply with applicable laws (Bergman, 2010).

To use these norms helps companies to have an optimal organization and an appropriate and efficient Quality Management System: it has allowed for example to settle more efficient operations and better process control, to increase flow and productivity, to reduce costs, but also to empower employees, to document the processes, to give a framework for continual improvement or simply to demonstrate to the customer the organization's commitment to quality standards (Bergman, 2010).

However, to set up a norm can be expensive (in time and money), and very bureaucratic, and some critics say that this method is quite defensive and product oriented. For some customer, a norm can mislead companies into thinking that certification means better quality. (Bergman, 2010)

To conclude, we can say that a norm has to be considered as a set up of guidelines for good practices, as a base to compare the company with other competitors or to know what level of organization it has, and as a standard giving a common vocabulary and a shared vision of the organization.

### TOOLS

In this paper, we will focus on two major tools: Kaizen and Six-Sigma.

Kaizen is a quality improvement program, which relies on making continuously some efforts to improve a process. The particularity of the Kaizen is that it is built on very small improvements based on common sense to reach at the end a high difference from the initial situation. Usually workers are encouraged to participate in teams to the Kaizen program (Bergman and Kelfsjö, 2010).

Six-sigma is another method to improve quality in a process. It has been settled the first time in the eighties by Motorola. The aim of this method is to reduce variation in processes by using statistics tools and structured approaches to solve problems. Using DMAIC procedure (Define, Measure, Analyze, Improve, Control), the overall goal is to better the performance of the production and to reduce the costs due to poor quality in order to reach customers satisfaction. The name refers to the ability of the process to deliver products included in the range of limits. The distance from the standard shouldn't overpass 6 times the deviation  $\sigma$  settled by the process output (Bergman and Kelfsjö, 2010).

# BACKGROUND OF RENAULT



Renault is an automotive French company, founded in 1899, which produces mainly cars and vans. The three major brands of the group are Renault, Dacia and Renault Samsung Motors. Renault is present in 118 countries and has a work force of 128,322 employees (December, 2011). In 1999, Renault group made an alliance with Nissan. In 2007, their first goal was to produce

electrical vehicles with zero emission, easily accessible to all and to provide with it the suitable quality and services. In 2011, the group sold out about 2.7 million vehicles worldwide and earned 42,628 million €. Renault Group's major markets are France, Brazil, Germany, Russia and Turkey.

In 2009, the company mainly focused on corporate social responsibility and on sustainable development. They started working on innovation in sustainable mobility with their "Institute of Sustainable Mobility". This institute also aims at training the top quality management and the scientists to fulfill the needs of automotive industry and sustainable mobility. Renault's motto for the eco-friendly vehicles is : "4 Rs Reduce, Reuse, Recycle, and Recovery Engine". Renault sustainable policy firmly believes on adopting renewable energy techniques, reducing overall consumption of energy and eliminating the green houses gases and noise pollution. Renault social policy is based on employees' health and motivation at work. Renault's social policy believed that their employee's skills are a key towards company performance.

In February 2011, Carlos Ghosn, Renault's CEO, introduced a new 6 years strategy with a slogan "Drive the change", aiming at focusing on the group growth and on generating more free cash flow. The same year, the group corporate sales division created a label "Renault eco2 for cars that do not emit CO2 gas ("Kangoo Z.E." and "Twizy"). Now, one of the main strategies of the group is quality. Their quality policy is based on customer satisfaction and also tries to achieve international public recognition by providing high quality cars. Renault group believed on the management that is profit driven and customers focused (Renault website).

## DISCUSSION

### **QUALITY MANAGEMENT**

Renault aims at being among the three best global car manufacturer regarding quality assessment because for them the quality is a question of safety for the users. In the past few years the Group's cars achieved the world's top carmakers in terms of reliability and service quality. Nevertheless, the company not only focuses on product quality but also on service quality, with the Customer Satisfaction Plan, because it will be a source of competitiveness in the next few years (Renault Group, *Annual Report 2010* and *2011*).

To achieve the best product quality Renault settled a global quality policy through all its factories around the world with the Renault Production Way. This incentive ensures the same level of performance wherever the car has been assembled. It gathers quality controls from the development to the production phase, standardized workstations, alerts directly from the assembly workstation to the checkpoint, trainings and quality process. Of course, all these elements are common in the 38 manufacturing plants in 17 different countries (Renault Group *Annual report 2011* and Renault Group 2012, *Manufacturing*). For instance, at the end of all assembly lines a checkpoint is made on each car with two different kinds of tests: technical tests on automatic test benches ( electrical functions, lights, engine, breaking, water resistance are experienced) and then humans control the appearance. The Alliance Vehicle Standard, common with Nissan, proves the quality of the final vehicle. Each month eight vehicles are picked up randomly and tested according to a very accurate list of 500 tests during 6 hours! This sampling aims at ensuring the global quality throughout the different assembling plants (Renault, 2005). To show the results of these efforts the company launched a marketing campaign and a "label": Renault Quality Made (Renault UK, 2012).

Thanks to these different incentives we can conclude that Renault definition of quality is mainly focused on safety, reliability, performance, and appearance dimensions. Now, let's move on the Total Quality Management within Renault Group. In this part, we will look at Renault management policy regarding each of the cornerstones quoted earlier.

First of all, about focusing on customer! It seems that Renault well understood the ins and outs of this first pillar. Indeed, Company's motto concerning customer satisfaction is: "Customer focus, measurement of satisfaction and permanent improvement". Since Renault was born it aims at answering the needs of the widest population range and it has always been its ambition to offer quality and affordable individual means of travel to the greatest number. To do so, the company started several incentives:

- They hired more women in their teams to better meet the needs of the feminine drivers. Moreover they created 200 Customer Relations Department to monitor the needs on a permanent basis (Renault Group 2012, *Placing the customer at the heart of the enterprise)*
- They launched the Customer Satisfaction Plan which presents three main points: inform the customer of the specific commitments in sales and after-sales, coordinate all actors across the service value chain through effective process control, process all reasons for dissatisfaction and all complaints received by the distribution networks on a case-by-case basis (Renault Group, *Annual Report 2010*)
- They create in each factory the RSQC position (Responsible of Quality for Customer). He is the interface between customer's complaints at a local dealer and the assembly lines. He is responsible for finding the root of a client's issue and solving it both at manufacturing and after sales levels. He is the link between the final user and Renault's network as well as the link between assembly line and central engineering (Renault, 2005)
- They launched as well the Renault Excellence Plan. At the beginning, Renault led tens of international surveys to improve its customer understanding regarding services expectations during the sale after-sales phases. Thanks to the results Renault defined "the 20 actions" to answer customer's demand, and all over the world the dealers are audited to be sure that they respect these standardized actions during the

supplier/customer interaction. This aims at improving the trust between Renault network and the customer(Renault Group, 2006)

• Finally, to be sure that the quality policy is always aligned with the customer Renault realizes every month a survey among 4000 customers concerning car selling and among 32000 concerning after sale services (Renault Group, 2006).

Concerning the focus on processes, information is not easy to find on the internet but we will come back later on the processes with the ISO 9001.

Regarding the continuous improvement it is not really emphasized on the company global website but some pieces of information show that they are aware of the importance of this concept. For instance, in all Renault's factories, every day they organize meetings at all level to speak about quality issues, find the root causes and define action plans to solve these problems at the factory scale first and at then at a global scale if a lasting solution is found (Renault, 2005). We will go deeper into this subject later in the leadership commitment part. Moreover, a blue collar worker interviewed for the *Annual Report 2010* indicates that the smallest "incident reported by a basic work unit (BWU) at a site is immediately processed locally. "No defects must go beyond the BWU": this principle is applied to the letter by the production teams in all Group plants".

The employee commitment is another strength of Renault. Indeed, the company tries to involve all the employees from the conception to the after-sales services. For instance, the company's culture has focused for many years on involving all personnel in Collaborative Innovation. For that, the company tries to create conditions that build motivation so that employees are willing to take initiatives, and to invent and implement new solutions, and also rewards performances in the areas of initiative, creativity and accountability. Employees must feel encouraged, listened and valued by their manager so that it improves their quality life at the workplace. In 2007, 4.1 practical suggestions for improvement were registered per person per year (Renault Group 2012, *Collaborative Innovation*). To insure the employees' respect and development within the company Renault has written and ratified the Declaration of Employees' Fundamental Social Rights. This Declaration covers basic rights such as health, safety, working conditions, refusal of forced labor and child labor, gender equality and personnel representation. It applies to all Group employees as well as to suppliers. The HR function supports management and listens to employees, as well as insures a legible system of remuneration. On top of that, managers are responsible for their subordinates' constant

training to develop their skills (Renault Group 2012, *Social Policy*). Indeed, in order that all employees feel quality actor they follow a very accurate training process with three different levels:

- the dexterity training at Renault's School of Dexterity which exists in every manufacturing plant: workers learn the basis of their task
- training on workstation models (mainly in case of new vehicle launching)
- training at the workstation with an experimented trainer: three steps ("I do, we do, you do") and training in the Operational Standard Sheet (Renault, 2005)

Finally, concerning the leadership commitment, Renault seems to be good but can still improve itself. According to Renault's management standards a good manager should be able to set clear objectives to his subordinates: he has to specify indicators of success (and link them with Renault's key objectives) which are measurable, monitored and feasible. After a survey on the internal commitment of employees led by an external company in 2006, Renault adapted its Manager Training Program and created a specific coaching in order to improve management practices, to develop cooperative relations and to handle managing complex situations (Renault Group 2012, Management). Therefore, Deming's 10<sup>th</sup> key point argues that it's better to avoid target for the workforce because it limits innovation and selfrecognition (Deming, 1986). On top of these standards, management team within all factories have to respect the daily meeting ritual: both at the production unit level and at the top management level, managers have to organize daily meetings of 5 to 30 minutes to analyze both quality results and incidents of the day before and the results of the previous implemented solutions. During these meetings all professions are represented (production, design, quality, maintenance, logistic...) and people think together to the "root causes" and define an action plan to solve this problem (standard modification, poka yoke implementation...). For instance, they can implement a checkman workstation on an assembly line which suffers from quality issues until the source is clearly identified. These meetings prompt the management to be involved in the quality incentive but also ensure the continuous improvement effort (Renault, 2005).

To conclude, according to the sources consulted, it seems that Renault is very high yield on customer focusing, employees' commitment and processes focusing (ISO 9000); fairly good at leadership commitment but still have some improvements to make concerning continuous

improvement. Nevertheless, we want to stress the fact that these conclusions are only drawn thanks to internet researches which needs to be confront with the field reality!

### **IMPLEMENTING NORMS**

#### Improving ISO 9000

Renault is one of the large industrial companies, which have initiated vigorous programs to implement the ISO 9000 standards at their operations sites. Actually, today, every manufacturing plant is certified ISO 9000. But Renault does not stop here: First it associate with the International Organization of Normalization to create, with other car manufacturers, the ISO/TS 16949:2002, which gives new requirements for the mass production of cars and car's spare parts. It is a tool of management and prevention of risks, giving strong rules targeting efficiency and continuous improvement of the organization.

Renault also takes part of the QS-9000, which is a management and quality guide for car manufacturers. Designed by Daimer-Chrysler, Ford, and General Motors in 1994, this guide is based on ISO 9001 but add some new requirements for quality That leads to a lot of quality improvements, 1999 an analysis of results presented that QS-9000 permits a decrease of costs of more that 6%; and a reduction of scrap and reject rates of 48%. QS-9000 mainly focuses on continuous improvement, and error avoidance by analysing the production sequences.

#### ISO 14000: OVER 10 YEARS FOR RENAULT

Sandouville was the first Renault plant to obtain ISO 14001 certification, in 1998. The certification cycle continues today, by developing new Renault industrial complexes throughout the world (Morocco, India, Russia...). The Group is thus confirming its on-going environmental, economic and social involvement at all of its sites. Since this year, environmental management at Renault sites has yielded the following results: 30% reduction in energy consumption, 65% reduction in water consumption, 70% reduction in waste 40% reduction in volatile organic compounds, and 47% reduction in toxic discharge into water medium. The commitment made by Renault is reflected today by complete success: all of the company's production sites have obtained ISO 14001 certification.

Examples:

• ISO 14001 certification reflects the quality of the Pitesti (Romania) site's environmental management system. For industrial sites, it constantly measures progress made in terms of water and energy consumption, visual and noise pollution,

atmospheric emissions, and production waste. That all of Renault's plants have obtained certification demonstrates the Group's on-going commitment to reducing its environmental footprint.

- France sites: Renault launches the world's largest solar energy project in the car industry by installing solar panels in its French manufacturing sites. The panels will cover a total area of 450, 000 metres squared, delivering a power of 60 MW.
- The Tangier site: rewarded during the fifth edition of the Sustainable Energy European awards 2011, organized by the European Union in the "Manufacturing" category. The Tangier site will be a world premiere in terms of manufacturing capacity with 400,000 vehicles a year at 98% zero carbon emissions, thanks to energy provided by a wind park and heating system powered by biomass.

#### Examples of Renault commitments thought ISO 26000

Renault Company uses other norms, for example the norm ISO 26000 that gives some guidelines for social responsibility to all kind of companies. The organization governance, the Human rights, the working conditions, and many other topics will be questioned. As guidance, document ISO 26000 is essentially different to standards 9000 and 14000: it does not contain requirements and therefore cannot be the basis for certification, measurement or conformity assessment. (Norm 26000, 2010)

Renault puts people and environmental protection at the heart of its strategy, as evidenced in its strong commitment to social responsibility. The initiatives are part of this policy and address several key ISO 26000 issues such as governance, human rights, working relationships and conditions, loyal practices, consumers, community and sustainable development. We can see this involvement in most of reports and papers on Renault's website.

### TOOLS

As we have seen previously in this paper, Renault has made great efforts to reach a high level of quality. We will now focus on two different tools, Kaizen and Six Sigma, in order to illustrate the efforts settled.

Included into the Kaizen policy, Renault's workers are encouraged to suggest any improvement they can find on their workplace or on the operation they realize on the car. It can be any can of suggestions, to move/elevate the storage place of one component or a tool, to suggest a new tool more efficient, to change a bit the nature of the operation, the way to do it... For instance, one of the worker's operation on one assembly line of Flins plant was to sand a part of the car body. Many metal chips were produced following the operation which dirtied his workplace and could lead to soiling on the final product. To avoid these potential aspect defaults on the product, he needed to sweep very often his workplace which was a huge waste of time and not so efficient with a traditional broom. After several years working on the same operation, he thought that it could be interesting to use a magnetic broom to clean his workplace instead of a traditional one. He suggested his idea to his manager who liked the idea. Working in collaboration with one engineer of the plant, they managed to create the suitable tool to clean the workplace using a magnetic field. This new tool has contributed to the reduction of the operating time of this specific operation and the reduction of the number of defaults due to this operation; metal chips are no longer a problem on that part of the process. The tool is nowadays settled on every factory of the group. This suggestion had helped the worker to feel more involved in his work (Michel Gambier and Christoffe Ferrari, 2011). This kind of kaizen is both profitable for the worker who can better his working conditions and find more interests and challenges in his work and for the manager who had improved the process thanks to it. To encourage this behavior, Renault consulting has developed a program where employees are trained to adopt the Kaizen philosophy. This program called Kaizen two hours and Kaizen two days aims at studying different workplaces to bring solutions in term of wastes, security, moves, etc, in order to better the workplace and consequently the product quality. This training is designed for managers, during 5 days they are trained on the Kaizen theory, the 7 different types of wastes, what is the correct way to observe the workers... Then they are trained on practical works, they have to implement their knowledge on a concrete situation. At the end of this training, they are encouraged to share what they have learnt with their workers to encourage them to follow their leads by observing what is wrong in their workplace (Michel Gambier and Christoffe Ferrari, 2011). The

introduction of Kaizen in Renault's policy has allowed a huge improvement of the assembly lines especially when it comes to the launch of a new car, which means a new assembly line full of imperfections to better.

Renault also uses actively the method of Six Sigma. When a recurrent problem is detected, Renault deploys a six-sigma method to treat and solve it. For example, all the cars at the end of the assembly lines pass some test to evaluate the variation to the standards; some of them are taken to have additional tests as a sample of quality. All these tests are done according to the six-sigma approach (Direction de la Communication Renault, 2005). To go further, Renault consulting has developed a new innovating approach to answer quality problems called lean six-sigma. Indeed, in nowadays world were competition is very high, it is important for companies to focus on reducing their wastes but very often this optimization process encounters problems. Often a lack of methods, a focus on unclear objectives, a bad management of projects led to waste of resources and time. Consequently to the association of Renault and Nissan, the company had started to work with a new approach, which combines lean management and six-sigma in order to structure the amelioration policy. This approach has taken from the lean management the will to reduce wastes, time cycle, balancing the tasks and the involvement of workers; it has taken from the six-sigma the deployment of infrastructures to settle the change, the will to reduce variability and statistics. Combining these two approaches Renault consulting trains the top management and workers on the best way to establish a diagnostic, to step back, to choose the good strategic projects to settle first, to lead a project from the beginning to the end... The aim is to make sure that all the managers handle good tools to lead correctly their teams and to manage them strategically in case of a problem would have been emphasized (Michel Gambier and Christoffe Ferrari, 2011).

Thanks to the Kaizen and six sigma approaches, Renault has reduced considerably the number of returns from unsatisfied clients. Some amelioration suggests by workers and implemented according to the six-sigma approach had huge impacts on the image customers have on the company.

# CONCLUSION

Aiming at being among the three best global car manufacturers regarding quality, Renault has deployed a lot of energy to reach this goal. Quality is both focus on the products and the services (sales, after-sales). Concerning the cars quality, Renault emphasizes four dimensions: safety, reliability, performance, and appearance. In terms of TQM, according to the definition of Bergman and Kelfsjö, Renault has well understood the stakes of focusing on customers and involving employees but still has to improve its policy concerning continuous improvement and leadership commitment. All these quality incentives had allowed Renault to become an example in terms of ISO certifications. All the factories are certified ISO 9000 even the ones in the less developed countries. On the top of that, the company is still involved in improving quality programs such as QS9000. Moreover, concerning ISO14000, Renault undertakes several actions for local and global ecology, for customers' safety and in order to permit everybody to have access to mobility. To maintain all these norms Renault encourages the use of Kaizen and six sigma. Thanks to trainings and regular controls these approaches are more and more developed inside the plant and has allowed huge improvements on the process. The conclusions of this paper are all based on internet sources; it would be interesting to compare them to reality in order to determine if the field reality matches well with the company's claims.

# References

Bergman and Kelfsjö (2010), "Quality From Customer Needs To Customer Satisfaction", 3rd edtn., Studentlitteratur.

Michel Gambier and Christoffe Ferrari (2011), "Renault Consulting: Sharing the experience", Boulogne-Billancourt, France.

Direction de la Communication Renault (2005), « La qualité au cœur du système industriel de Renault », Boulogne-Billancourt, France.

Renault Group 2012, *Quality*, Renault Group, accessed on May 26th <<u>http://www.renault.com.sy/aboutrenault/quali</u> ty.html

Renault Group 2006, *Renault déploie un plan* mondial d'amélioration de la qualité de service dans son réseau, Renault Group accessed on May 27th <<u>http://www.renault.com/SiteCollectionDocu</u> ments/Communiqu%C3%A9%20de%20presse /<u>fr-</u> FR/Pieces%20jointes/12878\_CP\_Qualite\_servi ce VFinale.pdf >

Renault UK 2012, *Why choose Renault?* : *Renault's quality made approach*, Renault UK, accessed on May 27th <<u>http://www.renault.co.uk/about/quality/approach.aspx></u>

Renault Group 2012, *Placing the customer at the heart of the enterprise*, Renault Group, Accessed on May 27th, <<u>http://www.renault.com/en/groupe/developpe</u>ment-durable/responsabilite-sociale-de-l-entreprise/pages/clients.aspx>

Renault Group 2012, *Collaborative Innovation*, Renault Group, Accessed on May 27th,

<<u>http://www.renault.com/en/groupe/developpe</u> <u>ment-durable/politique-</u>

sociale/pages/innovation-participative.aspx >

Renault Group 2012, *Social Policy*, Renault Group, Accessed on May 27th, <<u>http://www.renault.com/en/groupe/developpe</u>

ment-durable/politique-sociale/pages/politiquesociale.aspx >

Renault Group 2012, *Employees*, Renault Group, Accessed on May 28th, <<u>http://www.renault.com/en/groupe/developpe</u> <u>ment-durable/parties-</u> <u>prenantes/pages/salaries.aspx</u> >

Renault Group 2012, *Management*, Renault Group, Accessed on May 28<sup>th</sup> <<u>http://www.renault.com/en/groupe/management-et-gouvernance/pages/management-et-gouvernance.aspx</u> > and < <u>http://www.renault.com/en/groupe/developpem</u> <u>ent-durable/politique-</u> <u>sociale/pages/management.aspx</u>>

Renault Group 2012, Manufacturing, Renault Group, Accessed on May 28th <u>http://www.renault.com/en/groupe/renault-</u> <u>dans-le-monde/pages/fabrication.aspx</u>

Renault Group 2012, Annual Report 2011, Renault Group, accessed on May 28th <http://www.renault.com/en/lists/archivesdocu ments/renault%20-

%202011%20annual%20report.pdf>

Renault Group 2011, Annual Report 2010, Renault Group, accessed on May 28th < <http://www.renault.com/en/lists/archivesdocu ments/renault%20-%/202010%/20enpuel%/20enpert pdf>

%202010%20annual%20report.pdf>

Renault 2005, La qualité au Coeur du système industriel de Renault, Renault, Accessed on May 28th

<http://www.renault.com/SiteCollectionDocu ments/Communiqu%C3%A9%20de%20presse /fr-

FR/Pieces%20jointes/10528\_DP\_voyagequalit e dec05.pdf>

Kano, N (1995), Upsizing the organization by attractive quality creation. *Proceedings the First World Congress for Total Quality Management*, 10-12 April 1995, Sheffield, 60-72

Kano, N (2011), Life cycle and creation of attractive quality. In *Proceedings from Quality Management and Organizational Development (QMOD)*. (Dahlgaard, J.J and Park Dahlgaard, S.M., ed.), Linköping University, Linköping, Sweden.

Deming, W.E. (1986), *Out of the crisis*, Cambridge University Press, Cambridge, Massachusetts

ISO 26000 Guidance on social responsibility, *User Guide*, 2010, accessed on May 28<sup>th</sup> <<u>http://www.ifan.org/ifanportal/livelink/fetch/</u> 2000/2035/36282/394607/social\_responsibility /docs/en/26k-User-Guide%20 edition%202010-10-29 .pdf>

Renault Group 2012, *Laisser moins de traces*, Accessed on May 27th, <<u>http://www.renault.com/en/capeco2/laisser-</u> moins-de-traces/pages/fabrication.aspx>

Prajogo, D.I. and Sohal, A.S. (2003), "The relationship between TQM practices, quality performance, and innovation performance: an empirical examination", International Journal of Quality & Reliability Management, Vol. 20 No. 8, pp. 901-18.

Sousa, R. and Voss, C.A. (2002), "Quality management re-visited: a reflective review and agenda for future research", Journal of Operations Management, Vol. 20 No. 1, pp. 91-109.

Sim, K.L. and Killough, L.N. (1998), "The performance effects of complementarities between manufacturing practices and management accounting systems", Journal of Management Accounting Research, Vol. 10, pp. 325-46.

Prajogo, D.I. and McDermott, C.M. (2005), "The relationship between total quality management practices and organizational culture", International Journal of Operations & Production Management, Vol. 25 No. 11, pp. 1101-22.

Antony, J. (2004a), "Six Sigma in the UK service organizations: results from a pilot survey", Managerial Auditing Journal, Vol. 19 No. 8, pp. 1006-13.

Diana Heckl, Jürgen Moormann, Michael Rosemann, (2010),"Uptake and success factors of Six Sigma in the financial services industry", Business Process Management Journal, Vol. 16 Iss: 3 pp. 436 – 472

Brunet, A. P. and New, S.(2003), "Kaizen in Japan: an empirical study," *International* 

Journal of Operations and Production Management, Vol. 23, No. 12, pp. 1426-1446.

Berger, A.(1997), "Continuous improvement and Kaizen: Standardizations and organizational designs," *Integrated Manufacturing System*, Vol. 8, No. 2, pp. 110-117.

Kuhre, W.L. (1995), ISO 14001 Certification: Environmental Management Systems, Prentice Hall, Englewood Cliffs, NJ.

ISO wesite (<u>www.iso.org</u>) accessed on 30 May 2012

http://www.iso.org/iso/iso\_catalogue/managem ent\_and\_leadership\_standards/quality\_manage ment.htm