

COVALENCE ANALYST PAPERS

TOWARDS ECO-INNOVATIVE PRODUCTS with “offers” and “demands”

Asel Ormonova | University of Applied Sciences Fulda (Germany), intern analyst, Covalence SA,
Geneva, 08.11.2007

Brief overview

1. Getting started
2. What the world literature and Covalence consider under the term “Eco-innovative”?
3. Can the clean energy help clean up the mess done by the multinationals?/ How big companies are trying to save the world
4. Are car makers keeping up with the changing climate and world?
5. Conclusion

Getting started

Since I have started my internship at the Covalence I have come closer to different multinational companies (MC), their activities around the world. During the period of my work I came across with a lot of good and bad (ethical offers and ethical demands¹) activities of the MC. One would argue that it is not easy to polarise but I could argue that this is one of the few ways to have an idea about how these MC are saving and at the same time damaging the mankind’s life in the world, where the global warming is an urgent issue. By mentioning a few demands of some companies I would like to focus in this paper on the offers the of some companies.

Generally seen, almost every car maker and mining company is trying to be not excluded from the global effort in fighting the global warming. The reason for selecting the following companies (some products of Chevron, BP, Nissan, Toyota, and Honda) is that they were in trend of the recent news in terms of offering wise solutions to remedying the climate change. Although these companies are always accompanied with their damaging impact, they have been trying to compensate these “demands” with their investments in differing R&D and show their care about environment, realising that the nature can not always give but also be exhausted of giving. Thereafter, effort is worth underlying and paying much more attention.

What the world literature and Covalence consider under the term “Eco-innovative”?

My attention I would like to pay first to the usage of the term “Eco-innovative”, although this term is rapidly penetrating our daily life. The term “Eco innovation” according to Wikipedia.org considering it as a technological term, *refers to innovative products and processes that reduce environmental costs*; considering it as a social process, *this definition should be complemented: Eco-innovations should also bring greater social and cultural acceptance. In this view, (...) it determines learning and the effectiveness of Eco-innovations*².

Taking this into account it is easier to understand this term used by Covalence as one of its 45 criteria. As a company analysing the ethical quotation of over 200 multinational companies, for Covalence this term is of great importance. Being 33. in the list of criteria, this specific criteria covers information regarding new products or services offered by the company that are environmentally friendly³. Thus, it helps to excerpt the information about the products’ “offers” to people, environment and social life from the battle ground of involving challenges of global issues, such as CO2 emissions, various pollution, and the term challenges finding ways of solving it by searching for, creating new concepts of environmentally products and investing in renewable energies.

¹ Terms used by the ethical quotation analysis of Covalence, S.A.

² www.wikipedia.org/en

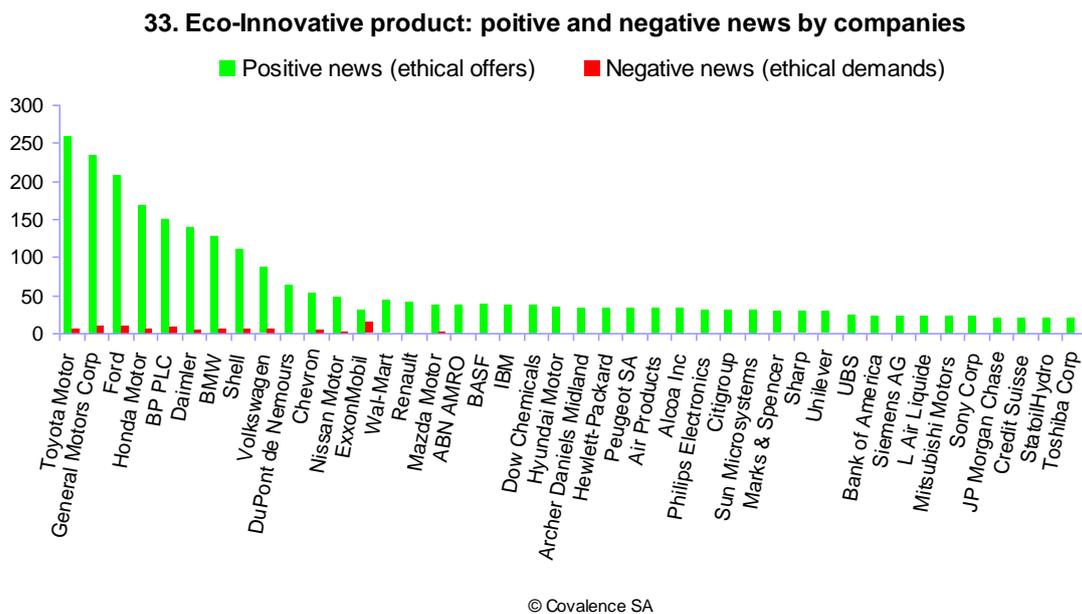
³ Covalence ethical quotation system; Criteria Manual, Geneva, 18.10.2007

**Can the clean energy help the multinationals clean up their mess?/
How big companies are trying to save the world**

Considering over 200 companies, starting from “Automobiles and Parts” proceeding with the “Oil and Gas” (sectors used by Covalence ethical quotation system), analysing all the happenings at the various companies, I found very interesting to outline some of them and have a closer look. For some it may seem, however, these globally active companies have been trying “to save” the world. Keeping it in mind, I could immediately propose my hypothesis, although this paper is assigned briefly to convey some information from the prosperous world of Eco-innovation involving some multinational companies (MC). Even though I will not be able to prove it in this short paper, I would like to use the hypothesis in order to show that these multinationals are in a way cleaning up their mess, which has been caused due to their activities. My hypothesis would be: “Multinationals are getting used to causing a lot of damages to the environment and getting used to fixing some amount of these damages, but not every damage they engender” Besides creating the image for the companies reputation through the Eco-innovation, the hypothesis given above could also be considered as “forced motivation”, which MC have to contemplate and improve the conditions.

The plurality of MC and difficulty of proving and assessing them makes it harder for me to provide with some detailed statistical information. However, it is worth refreshing our minds with some factual examples from these “dark sides” of MC. Presuming the great importance and exhausting nature of energy resources, and relying on the statistical data from Covalence in terms of “offers “of Eco-innovative products and solutions (see the statistics below) I took two MC, from the sector “Oil and Gas” used by Covalence,.

Figure 1, provided by Covalence SA



Starting the examples, which are far away from being Eco-innovative, I will exemplify the first company’s worst environmental impact in its history. The American company Chevron has been known for headlines called “rainforest of Chernobyl” generated by one of its part Texaco. This headlines tells us that the company “dumped over 18 billion gallons of toxic wastewater into the Amazon rainforests from 1964-1992”⁴.

To try to not give the impression that this was the only case, which is the common vindication practised by the MC, I take another example, in which the Chevron’s Richmond operations house was found liable for over 304 accidents by illegally bypassing wastewater treatments and failing to notify the public about toxic releases; Chevron’s Richmond refineries were forced to pay \$540,000 in 1998.⁵

The second company is also one of the most famous companies for its “good doings and bad doings at

⁴ <http://www.chevrontoxico.com/article.php?id=172>

⁵ www.wikipedia.org

the same time” and rich for its statistical reputation of being the “worst polluting corporation”. The latter can be elaborated by giving controversial examples from its recent reputation of BP. The following examples depict how BP can damage the environment by getting official permissions from the authorities in order to clean up its tools (pipelines). How this works can be shown with these two excerpts by Chicago Tribune and Alaska Department of Environmental Conservation officials report. The first newspaper tells the story: *BP will be permitted to pollute Lake Michigan with an average of 1,584 pounds of ammonia and 4,925 pounds of sludge -- every day -- from its Whiting, Indiana oil plant outside of Chicago*⁶.

The latter reports about a toxic spill of methanol at the Prudhoe Bay oil field managed by BP PLC. *Nearly 2,000 gallons of mostly methanol, mixed with some crude oil and water, spilled onto a frozen tundra pond and a gravel pad from a pipeline. Methanol, which is poisonous to plants and animals, is used to clear ice from the insides of the Arctic-based pipelines*⁷.

Having noticed that these kind of accidents, negligent activities without a detailed scrutiny, and having realized their final damages to people and the environment, we can step up to the “ethical offers” of the above mentioned MC.

As everyone knows that “saving our world” is not an easy job, the same is for the MC. By profiting from the environment many MC have conceived that in fighting all mankind caused challenges need urgent responds. The responds the MC have are influenced by their investments in R&D of finding renewable sources and consequently making use of it in different spots of the world.

The official website of Chevron gives us information about how committed the company is to the global warming and other challenges and has been doing its “best”, i.e. it “spent about \$2 billion USD on alternative and renewable energy development between 2002 and 2006, and expects to spend more than \$2.5 billion on this between 2007 and 2009⁸”, spending annually \$300M USD into alternative fuel source⁹. The opening of hydrogen fuelling stations in Chino, California, Oakland, California, Selfridge, Michigan and Rosemead, California, and Orlando, Florida¹⁰ proves the company’s great endeavour in utilising hydrogen in transports.

Examples of recent Chevron projects that use solar power include an \$11.9 million solar-power parking project at California State University, Fresno, being built by Chevron Energy Solutions, a Chevron subsidiary. The structure uses photovoltaic panels atop 10 metal parking shelters for 700 vehicles and is set to meet 20 percent of campus electricity demand, equivalent to the power needs of 1,000 homes¹¹.

Again underlying the controversial facts about the BP, above mentioned as the “worst polluting corporation”, now in the role of highly experienced corporation, proudly pronouncing its name by saying: *“BP was the first company to take the solar technology used in space and develop it for everyday use. Today we’re one of the top solar manufacturers in the world¹²”* (more than 30 years of experience), is a player in the renewable energy market. *BP Solar had a 20% world market share in photovoltaic panels in 2004 when it had a capacity to produce 90 MW/year of panels. It produces more than 200 MW of solar technology every year and operates in over 160 countries with manufacturing facilities¹³*. Its work starting from designing and manufacturing solar systems, proceeds benefitting from its experience making the renewable energy as a business.

After these facts and efforts having been done by the huge MC, I am impressed trying to imagine, how the world is being cured from its “fever”. It can be propoerted that these kind of outcome can and will be extended, continued and diversified. However, making great effort should not only be applied to this sector “Oil and Gas”, there are dozen other advancements made by the automakers. The next passage will bring more about other sections of Eco-Innovation.

Are car makers keeping up with the changing climate and world?

⁶ Chicago Tribune, July, 2007

⁷ Alaska Department of Environmental Conservation, 16. Oct., 2007

⁸ www.chevron.com/deliveringenergy

⁹ www.wikipedia.org

¹⁰ [http://www.chevron.com/deliveringenergy/hydrogen/sept. 2007](http://www.chevron.com/deliveringenergy/hydrogen/sept.2007)

¹¹ www.chevron.com

¹² www.bp.com/renewableenergy

¹³ www.wikipedia.org



The answer to this question can vary depending on who do you ask to. I assume that the car makers would definitely find a lot of arguments in favor of the answer “yes” and demonstrate how innovative have they been in recent years, designing their concepts and products towards ecologically friendly and utilizing the hydro and electric automobiles. Despite the criticism from different organisations, proponents of “living green”, some of the automakers have shown so many convincing models, which have been demonstrated in annual car shows like, Frankfurt Auto Show, Tokio Motor Show etc. The models, combining comfort with eco-efficiency, have been making our driving conscious and bringing joy, e.g. the model

proposed and demonstrated by Honda at the 40th Tokio Motor Show has this very idea. Driving the new model Honda’s PUYO brings together “clean”, “safe” and “fun”. *The PUYO represents a new idea in mobility and functionality in an environmentally responsible, people-friendly minimalist design featuring an ultra-high efficiency, small frame and fuel cell technology to please both users and onlookers alike, The PUYO is a fuel cell vehicle which designed with out-of-box thinking to provide fun for both the vehicle owner and people around them as well. The PUYO has a soft “gel body”, can turn 360 degrees while at standstill, and it’s all glass above the waistline.*

Lingering in the headlines of newspapers and news web pages as being totally clean, nothing but steam car Hydrogen 7, fuel cell vehicle converting hydrogen into electricity, was the exclusive eco-innovative product, made by BMW Germany.

‘Hydrogen 7’ car uses high-energy element in liquid form in an internal combustion engine. Liquid hydrogen has many advantages. “Being part of the natural biological cycle, water is fully compatible with the environment,” says Daniel Kammerer, Head of Alternative Drive Systems in BMW’s communications department¹⁴.



According to the statistics of Covalence, regarding the criteria 33 “eco-innovative product”, the most positive ethical offers are counted to Toyota. (see the



statistics by Covalence, p.2). Having the following sentence as its philosophy “zeronise consists of reducing *pollution, traffic deaths and road congestion*¹⁵” is not easy and enact the philosophy, which requires a lot of work, investment in clean energy and innovation. Some of the models let reason: “Nothing is impossible”.

The products of Toyota is certainly famous not only for its innovative strategies but also for the high quality rankings, ecologically friendly products corresponding and qualifying the demands of modern international community. One of the massive production of its hybrid gas electric vehicles was sold 1 million around the world.

The most applauded model at the Tokio Motor Show was Pivo 2 offered by Nissan.

¹⁴ from data base of Covalence, EV World, 31.08.2007, Geneva, Switzerland

¹⁵ www.toyota.com



Pivo 2 employs 'by-wire' technologies for braking and steering and features a 360 degree turning cabin and 90 degree turning wheels that makes reversing a thing of the past. In addition to advancements on this radical rotational design, the second generation Pivo uses a Robotic Agent to create a unique owner-vehicle relationship that is a kin to that of a friend.

This can give us assurance that we are safe even if the driver falls asleep.

Conclusion

It is known that all the damages caused by MC to the human being and the environment cannot be compensated by any material stuff, however, the same companies, corporations can work out some preventive measures and contribute to the prospective long term solutions with their investments (such as Chevron, working with universities and different institutions), joint projects with the developing world (such as BP providing with its experience of solar panel).

If the auto makers keep in this tempo their thriving innovation, one day maybe, there will be presented cars which give the driver extra time to sleep (driving with safe and fun) and get ready for work or automatically (without a driver needed) pick up kids from school; producing nothing damaging to the environment (cars with hydrogen and solar generators).

It has been always hard to envisage clearly the future due to the often surprising projects offered by the car makers. Therefore, it is nice to have visions, which enable the dreams come true. Dreams about having our surrounding without unhealthy metals and gases intruding the air is already a reality.