Green Marketing Practice of Car Producers

Jana Přikrylová, Eva Jaderná

Abstract: The development and maintenance of sustainable business has become an essential part of the aims of car producers, and thus, their Corporate Social Responsibility is strongly connected with the concept of Green Solutions in production. While “Go green” is a popular marketing slogan, it entails a necessity in the cars fleet market. Bijtelling, a special approach to taxation in the Netherlands, represents the market force pushing car producers to design greener vehicles and will make the object of this paper.

Key words: Sustainability · Corporate Social Responsibility · Green Solution · Bijtelling

JEL Classification: M39

1 Introduction

Corporate Social Responsibility is one of the most important marketing strategies followed by companies in the B2B and the B2C market. It presents a competitive advantage for companies. The point is that companies act in conformity with the principles of sustainability and ethical behavior. Most companies in the automotive industry are following this trend. An example of best practice is the ŠKODA AUTO project – “One tree planted for every ŠKODA sold in the Czech Republic”. Thanks to ŠKODA AUTO 500 000 trees have been planted in more than 50 towns and villages across the Czech Republic. (Škoda auto a. s., 2016a)

The strategy of Corporate Social Responsibility is based on 3 main approaches: economic, social and environmental. (Cimler, Zadražilová, 2007) In this paper, we focused on the environmental approach. Integrative environmental management means that every element in the corporate value chain is involved in the minimization of the firm’s total environmental impact from start to finish of the supply chain, as well as from the beginning to the end of the product life cycle (Hollensen, 1998) For this reason, it is necessary not only to advertise sustainable products, but to introduce Green Solutions into processes across the entire company.

Green solutions mean technical solutions or company activities aimed at reducing the impact of production on the environment. The most common green solutions in car production focus on:

- Waste reduction,
- Developing products that protect/ do not damage the environment,
- Ecological solutions for the current products,
- Transformation and improvement of the production process,
- Development of a relationship with suppliers (sustainable processes and supply chain)
- Controlling the product impact (whole production chain),
- Using renewable energy sources.

A significant attribute of Green Solutions is emission reduction. It also represents the issue pursued in this paper.

2 Methods

The main research question refers to the introduction of Green Solutions in the practices of car producers. In pursuance of Student Grant Competition, case studies of market stimulation for sustainability were elaborated. One of the most important criterion as such is taxation. A best practice in taxation in the Netherlands will be described in this paper as a case study. It gives an idea of what is Bijtelling and the impact of this taxation on car sales in the Netherlands – illustrated through more examples of car producers (VW, Hyundai, Fiat, Ford, Renault, ŠKODA – selected representatives of these brands). The paper presents the results of an analysis of secondary resources in the field of Green Solutions or Corporate Social Responsibility, and describes several best practices of sustainability across the world.

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3 Research results

Car producers assess the problem of reducing emissions as the main goal of Green Marketing. Emission heights were introduced as a major characteristic of Green Solutions. This activity is supported by the state in various ways. Mainly, states encourage the production of environmentally friendly cars (CNG, LPG, electric, hybrid). They follow 3 main approaches:

- Emission standards,
- Direct state support,
- Taxation.

The Emission Regulation is shown in Figure 1 (Progress of emission limits in the most significant automotive markets in the world).

**Figure 1** Progress of emission limits in the most significant automotive markets in the world

![Regional CO₂ Emission Regulations](image)

Source: KPMG International, 2010

The European Union has been complying with emission standards (European Emission Standards) since 1993. Euro 6 is the latest emission standard covering all types of vehicles - passenger cars (category M), light commercial vehicles (category N1) and truck and buses. The Euro 6 regulations are focused on tail-pipe emissions such as: all NOx emissions can be at a level of 0.46 grams-per kilowatt-hour (g/kWh), particulate Matter (PM) of 0.01 gm/kWh, permissible levels of PM close to 95%. (Cummins, 2011)

The second approach, as mentioned above, is direct state support. State governments stimulate the production or use of cars with alternative motorization by incentivizing, reducing tax and other benefits. The following table (Table 1 State incentives for hybrid/electric car purchase) presents selected examples of state support for alternative motorized models.

**Table 1** State incentives for hybrid/electric car purchase

<table>
<thead>
<tr>
<th>Country</th>
<th>Incentives</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Increased board of “luxury” tax</td>
<td>AUS $60,136 - AUS $75,375</td>
</tr>
<tr>
<td>Austria</td>
<td>Subsidy for electric automobiles for companies</td>
<td>€ 2000 - € 4000</td>
</tr>
<tr>
<td>Denmark</td>
<td>Eco tax removal</td>
<td>Tax at registration, derived from the price of the automobile</td>
</tr>
<tr>
<td>France</td>
<td>State subsidy for car purchase</td>
<td>€ 6 300</td>
</tr>
<tr>
<td>Italy</td>
<td>Free parking in yellow and blue zones in Milan</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>State subsidy for automobiles with emissions up to 50g CO₂ /km</td>
<td>SEK 40 000</td>
</tr>
</tbody>
</table>

Source: Processed according to Broul, 2014
One of the most important approaches of state support to sustainability in the automotive industry is taxation. It can take different shapes. This paper looks at case study made on taxation in the Netherlands.

**Case study – Taxation in the Netherlands**

Taxation in the Netherlands is very specific and works firstly with CO₂ emissions under the so called environmental taxes belonging to BPM (taxation on cars and motorcycles), Bijtelling, Road tax and VAT. BPM is a tax payed for the first registration of a car. It depends on the CO₂ values and it regards all newly acquired cars. Table 2 (Emission class for calculating BPM for cars) presents the division into classes and BPM tariffs for all classes in 2016.

<table>
<thead>
<tr>
<th>Class from g CO₂/km</th>
<th>Class to g CO₂/km</th>
<th>Fixed item</th>
<th>Variable item</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>0</td>
<td>79</td>
<td>175 €</td>
<td>6 €</td>
</tr>
<tr>
<td>80</td>
<td>106</td>
<td>649 €</td>
<td>69 €</td>
</tr>
<tr>
<td>107</td>
<td>155</td>
<td>2 512 €</td>
<td>124 €</td>
</tr>
<tr>
<td>156</td>
<td>174</td>
<td>8 588 €</td>
<td>239 €</td>
</tr>
<tr>
<td>175</td>
<td>-</td>
<td>13 129 €</td>
<td>478 €</td>
</tr>
</tbody>
</table>

Source: Dolejší based on Tax and Customs Administration - Belastingdienst, 2016a

The road tax is a yearly tax for car owners, except of cars with emissions <50g/km CO₂. V.A.T. (Value added tax) in the automotive industry, in the Netherlands is of 21%.

As previously stated, this article will deal with Bijtelling, a specific form of taxation. It means “addition” in English. This tax is for fleet customers, who use fleet cars for personal purposes. The tax is focused on the use of cars for trips over 500 km a year (Tax and Customs Administration – Belastingdienst, 2016b).

The calculation of Bijtelling is based on defined emission classes, which establish the proportion of car value added, to avoid the use of fleet cars for the employees' personal purposes. Table 3 (Overview of emission classes for the calculation of Bijtelling) states the rate of taxation for the use of fleet cars by employees for personal purposes.

<table>
<thead>
<tr>
<th>Emission (g CO₂/km)</th>
<th>Bijtelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>4%</td>
</tr>
<tr>
<td>1-50</td>
<td>15%</td>
</tr>
<tr>
<td>51-106</td>
<td>21%</td>
</tr>
<tr>
<td>&gt;106</td>
<td>25%</td>
</tr>
</tbody>
</table>

Source: Dolejší based on Internal materials of ŠKODA AUTO a.s., 2016

For example, the Octavia model of ŠKODA (diesel engine) was taxed at 14 – 20% in 2016 and ŠKODA Octavia (petrol engine) at 20 – 25%. The standards of emissions are changed every year and the difference between 2015 and 2016 in the highest level of Bijtelling tax was 4 g CO₂/km (in 2015 – 25% for emission >110 g CO₂/km).

Bijtelling and BPM affected the sales of all car manufacturers operating in the Netherlands. While the taxes aim at improving the environment, they have a negative impact on businesses. This adds up to the fact that long-term sales planning cannot be done accurately as the government is changing the tax percentage from one year to the other.

Škoda Auto, plc. illustrates these changes clearly. Because the sales of fleet cars make up for 60% of car sales in the Netherlands (Figure 2 Sales of ŠKODA AUTO Cars in the Netherlands), Bijeelling taxes and their changes are indispensable for devising innovation and development strategies. It is necessary to work with this information and propose new Green Solutions in the production of cars.

There are more importers in the Dutch market who offer fleet cars and who noticed the impact of Bijtelling and its changes on their sales which makes its effects worth mentioning.
The changes in taxation in the Netherlands have an extensive impact on all corporations in the automotive sector. This impact is represented in Figure 3 (Sales of selected models in car segment A00 from Q4/2012 to Q1/2016).

Segment A00 represents the following selected cars:

- Citroen C1
- Fiat Panda
- Ford Ka
- Hyundai i10
- Renault Twingo
- Volkswagen UP!
- Škoda Citigo
These models were selected because of their high value in the Dutch market and because they stayed on the market the entire following period. (Internal materials of ŠKODA AUTO, plc., 2016) Figure 3 shows the sales cycles which demonstrate the impact of Bijtelling changes. At the end of the year (before the new level of taxation) sales are higher than at the beginning of the year. The top of the growth curve can be seen in the first quarter of the year. The swing is significantly noticeable in Volkswagen UP! and Hyundai i10.

All these models belong to the A00 car segment defined as small cars. The other car segments are A0 (compact cars), A (small family cars). These categories represent the majority (80%) of car sales in the following period. Cars are further classified in B car category (medium class) and C category (big luxury cars). In the Netherlands, the sales of the latter are very low.

4 Conclusions
Green Marketing Strategy as a part of Corporate Social Responsibility exhibits many approaches and can be achieved in several ways. One major issue, inter alia, is the environmental aspect. Companies are expected to act sustainably and, as a result, there are Green Solutions in manufacturing in the most areas of industry.

State governments want to support these solutions as well as the acquisition of sustainable products. This paper presents Green Solutions in the automotive industry. This can be an example of developing environmentally friendly products as well as more ecological solutions to existing goods. Such approaches can be supported and stimulated in many ways.

Many countries require emission standards (Euro 6), taxation and offer direct state support focused on sales of hybrid/electric cars. This case study discusses taxation in the Netherlands. The Netherlands has regular taxation (BMP, Road Tax) along with a specific tax Bijtelling. This tax refers to the use of fleet cars for personal reasons. The impact of the changes in the tax rate is easily noticeable. At the end of the year, the sales of cars are at the top of the curve because customers expect an increase in the requirements for emission reduction. At the beginning of the year, new limits regarding emissions are communicated and they become stricter with every year.

ŠKODA AUTO, plc. offers mainly fleet cars in the Dutch market (in 2015 ~ 9661 fleet cars sold) and feels the impact of Bijtelling extensively. For all car producers, the emission standards and the pressure to reduce emissions have become very difficult.

Therefore, it is necessary to support the development of new technologies and to introduce suitable Green Solutions in production. Companies can work with these solutions through their marketing activities and present their corporation as a sustainable one, following the principles of Corporate Social Responsibility.

References
Internal materials of ŠKODA AUTO, plc., 2016.