Abstract

*Purpose* – As early as in 2015 Electric Vehicles (EVs) may become a mass phenomenon, directly competing with conventional vehicles driven on Internal Combustion Engines and hybrid systems. Studies which deliver significant results on the market chances and potentials of EVs are still rare. However, these studies are required by manufacturers to make the right strategic decisions. Also there is no detailed information on the image of EVs. *Originality* – Dealers are the main source of information for potential customers and new car buyers. In this study Automobile Salesmen (AS) are considered as Opinion Giver, referring to Lazarsfelds Two-Step-Flow of Communication. AS were asked for their image of EVs and what propulsion technology they would recommend. *Methodology* – The study participants completed a standardized online questionnaire (n = 23) or were personally interviewed (n = 12), following a topic guide. *Findings* – Typologisation resulted in four groups: Enthusiasts, opportunists, EV-rejecting environmentalists and strict rejecters of alternative propulsion technologies. The latter two compose the majority with 56%. The mainly stated negative attributes of EVs are: Expensive, small, slow, not suitable for daily use, austere, boring and weak (motorisation). After all, only 6% of AS would recommend battery EVs to their customers.

**Keywords**

Electric Vehicles | Image Analysis | Opinion Leader | Automotive Salesmen | Opinion Giver | Two-Step-Flow of Communication

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**Introduction**

In the future, Electric Vehicles (EVs) will be directly competing with conventional vehicles driven on Internal Combustion Engines (ICE) and hybrid systems (ICE interacting with Electric Motors) in car dealers’ showrooms. In this scenario the
Automobile Salesmen’s (AS) opinion of EVs may become a key factor to the success of this drivetrain technology. At the Point of Sale AS opinion can be considered as an exceptional position due to their direct contact with potential customers, incorporating their knowledge and opinion actively into their sales strategy. Moreover, dealers do not just sell vehicles to end customers but are wholesale customers themselves.

Related studies

At this particular time there are some studies on customers purchase intentions of alternative propulsion technologies, but apparently there are only very few studies which take the image of these technologies into consideration. The study »Welche Chancen haben Elektrofahrzeuge in Deutschland?«, published in July 2009 by PULS MARKT FORSCHUNG (2009) includes aspects of an image analysis amongst potential customers. Synovate Motoresearch’s »Study on Consumers’ Attitudes Toward Advanced Propulsion and Alternative Fuels« (cf. Miller 2007) has a similar approach, yet it does not draw a clear picture of the image of EVs.

»AutoTECHCAST« by HARRIS INTERACTIVE (2009) measures consumers’ knowledge of advanced technologies, purchase considerations and purchase price data on systems and components. They also provide detailed consumer automotive and demographic data for each of the technologies analyzed. Recent studies such as »The Comeback of the Electric Car?« by The Boston Consulting Group (cf. BOOK et al. 2009) or »Umfrage und Trendanalyse zur Elektro-Mobilität« by Warnstorf Partner Consulting (cf. WP CONSULTING 2009) are mainly dealing with infrastructural, technological, economical or political factors and their impact on the success of the EV. The same applies to »Impact of Service Station Networks on Purchase Decisions of Alternative-fuel Vehicles« (cf. ACHNICTH et al. 2008).

The study »Elektrofahrzeug-Technologie Trend-Studie 2009«, conducted by Warnstorf Partner Consulting (cf. WP CONSULTING 2009) shows that there is a great potential for EV sales, yet there is a big discrepancy regarding the number of the estimate of EV experts, ranging from 300,000 to more than one million in 2020. The study claims that one of the reasons for the very optimistic forecasts is the recently dramatically changing image of the EV, from small, rickety and boring to dynamic, powerful and interesting.

According to the study »Umweltbewusstsein in Deutschland« (WIPPERMANN et al. 2008), conducted by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Germans are increasingly concerned about the environment. In 2004 already 18 % named »environmental care« as the biggest challenge in Germany and despite the dramatic downturn of the world economy, the figure rose to 22 % in 2008.

In the 2009 published study »DEKRA Umfrage«, conducted by DEKRA, a German association for technical inspection, 1,250 drivers were asked questions on alternative drivetrains. More than 90 % stated that they are basically willing to buy a vehicle with an alternative drive technology. Regarding disadvantages, 61.5 % said that they would agree to less driving performance. A shorter range – a typical characteristic of EVs – would be accepted by 40.6 %. Moreover, the majority (58.6 %) is willing to buy a hybrid or EV, given that there was a significant cut of the TCO (Total Cost of Ownership) or a governmental incentive (cf. DEKRA 2009).
Theoretical framework

The approach of this study is based on the Two-Step-Flow of Communication concept by LAZARSFELD et al. (1944). LAZARSFELD identified a group of persons who acted as influencing centers or key personalities in the field of interpersonal communication. He called these centers Opinion Leaders (OL).

In 1976 EURICH as well as GREFE/MÜLLER more specifically defined and described OL (cf. BURKART 1998, p. 206f). TROLDHAUL/VAN DAM called the phenomenon opinion sharing, i.e. a bidirectional influence and persuasion between opinion giver and opinion asker (ibid.). These two groups are very similar regarding their level of knowledge, social status, sociability and media usage. Additionally, WRIGHT and CANTOR identified opinion avoider, which are »persons who avoid or at least do not seek other people’s view on a particular issue, topic or variety of topics« (ibid.).

The approach developed by GREFE/MÜLLER includes the interchangeability (transition) between opinion asker/advice seeker (OS) and opinion giver/leader (OL). Koepf extended this approach by adding the interchangeability between opinion avoider/inactive (I) and opinion asker. Due to specific needs and circumstances, former inactive opinion avoiders may increase their media usage in order to gain knowledge, turning them into advice seeking opinion asker (transition I/OS). Gaining further knowledge also increases the chance that these former inactive opinion avoiders turn into opinion givers, spreading their opinion and knowledge or interchanging it with other advice seekers (transition AS/OL). However, as soon as the former inactive advice seekers’ demand of knowledge is satisfied and their specific aim has been achieved, these advice seekers may become inactive again (transition OS/I).

The »DAT Report« (DAT 2009), a 2008/2009 representative survey amongst buyers of new and used cars, conducted by the Deutsche Automobil Treuhand GmbH states that an outstanding 90% of new car buyers in 2007 got their information on vehicles they intended to purchase primarily from AS.

In this study AS are considered as opinion giver or opinion leader and multiplier of information and opinion whilst potential customers are considered as former opinion avoiders or inactives who, in need of knowledge and market intelligence, turn into advice seekers (see Figure 1).
Research objectives
The aim of this study was to describe the image of EVs amongst AS and go further into the questions of
1. which attitudes AS have towards Electric Vehicles
2. and what the main driving forces and intentions of AS are to promote a specific propulsion technology if there is direct competition and equal profit margins.

Research design

Data collection
Recruiting of participants
The data on the image of EVs were obtained from selected German sales partners of the cooperation partner, with some of them selling other vehicle brands as well, but no electric vehicles.
As state-of-the-art EVs only provide short ranges (40 to 650 km per charge or tankful\(^1\)) the participants were also selected by their location, classified as city (100,000+), town (25,000–100,000) and suburbs/rural area (1–25,000).

Basic data

<table>
<thead>
<tr>
<th>Number of Participants</th>
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<tbody>
<tr>
<td>Number of automobile salesmen invited to online survey</td>
<td>295</td>
</tr>
<tr>
<td>Response rate</td>
<td>8 %</td>
</tr>
<tr>
<td>Number of automobile salesmen invited to personal interviews</td>
<td>20</td>
</tr>
<tr>
<td>Response rate</td>
<td>60 %</td>
</tr>
<tr>
<td>Total response rate</td>
<td>12 %</td>
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</table>

<table>
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<tr>
<th>Number of Dealerships, sorted by population</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>100,000+</td>
<td>21</td>
</tr>
<tr>
<td>25,000–100,000</td>
<td>3</td>
</tr>
<tr>
<td>1–25,000</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
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<tbody>
<tr>
<td>Mean age</td>
<td>43</td>
</tr>
<tr>
<td>Number of males</td>
<td>32</td>
</tr>
<tr>
<td>Number of females</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 1
Basic data

Method and instruments

Method
The data for this study was retrieved with quantitative and qualitative methods. A standardized questionnaire was provided as an online version. In addition to that, the questionnaire was filled out during personal interviews, which were conducted with selected dealers in eight federal states of Germany. The dealers’ willingness to participate in a survey was expected to be very limited. The feedback quota of 7.8 %

\(^1\) Extended Range Electric Vehicles (EREVs) provide a combustion engine which serves as a generator, extending the range up to about ten times of the battery range.
after keeping the survey 21 days online substantiated this. Therefore, the quantitative results from online questionnaires and from personal interviews have been merged and evaluated. However, this study is not representative. To draw a more holistic picture of the scene, focus was set on the personal interviews which provided qualitative information, completing the quantitative results. Statements of AS have been translated into English.

**Standardized questionnaire**

A standardized questionnaire was developed with the cooperation partner of the project. The questionnaire consisted of the six sections:

- Personal perception of passenger vehicles,
- Vehicle usage,
- Media reception,
- Technology knowledge,
- Business perception of EVs,
- Personal perception of EVs

and the three supplemental sections

- Sociodemographic information,
- Introduction to EV (classified as Quadricycle),
- Introduction to Range Extended EV (classified as passenger car).

The sequence of the sections followed a dramatic arc. The sections included closed questions, Likert scales, scaled response questions, semantic differentials and open questions. The online survey allowed to determine the order a participant received the sections of the survey. Thresholds for the purchase price of »environmentally friendly technology« (Question: »Would you pay more for environmentally friendly technology?«) remained unspecified. Unless it is asked for a specific technology and its effect on fuel efficiency or greenhouse gas emissions, it is not possible to evaluate the technology and state a specific amount of money. The answer to this question indicates that if the environment is appreciated enough, a higher price is tolerated in general. The willingness to pay more cannot be presumed nor is it tied to a specific amount of money.

**Personal interviews**

During the interviews questions of the standardized questionnaire have been asked, this rather topic or context related than strictly following the structure of the questionnaire. However, the section headlines of the standardized questionnaire served as a topic-guide (LAMNEK 1998, p. 88). This technique provided smooth topic transitions and allowed in-depth investigations whilst minimizing distractions. During the personal interviews there was a specific focus on the effects of feedback consistency, particularly the AS’s suggestibility or conviction.

**Pre-Test**

The Pre-Test was conducted amongst product managers, fleet sales persons, market managers and other executives. Although these interviewees were no salesmen nor sales managers, they were automotive experts similar to the defined target group.
Data analysis

**Intentions and the Image of EV**

The Data is listed in simple quantities, reflecting the total share of certain driving forces, intentions and mentions of attributes (semantic differential), enriched with citations.

**Typologisation**

The two cluster criteria were the Yes/No-Question »Would you pay more for environmentally friendly technology?« and the ratio between the number of selected negative attributes (NEG) and positive attributes (POS) in the semantic differential. Neutral positions were neglected. Typologisation also took personal statements into account.

No significant correlations have been found between the age or the sex and the images of EVs. Sociodemographic factors did not explain tendencies of the image. This is why citations are stated without names, ages or other information and remain anonymous. Technical terms and individual expressions have been transliterated into less colloquial words or were explained. Notes on non-verbal expressions, taken during the interview have been interpreted. Paraphrases and quantitative data from the standardized questionnaire have been blended and allotted to the identified types of dealers.

**Results**

**Recommendations and intentions**

**Recommended propulsion technologies**

AS were asked what powertrain they would recommend if there is direct competition and equal profit margins. Results are shown in Figure 2.

![Fig.2 Recommended propulsion technologies data](image)

**Reasons for recommending a specific propulsion technology**

Subsequently AS were asked why they would recommend this powertrain, with 12 possible answers and multiple choice. A total of 110 entries were given. The results show that fuel consumption (14 %) and a guaranteed future of the propulsion technology (13 %) are the main reasons, followed by environmentally friendly (12 %) and personal liking (10 %). Fuel supply security (9 %) ranks on number five. Interestingly, running costs, which are tied to fuel consumption only got 7 % of the votes. Additional turnover with maintenance or spare parts is the least stated reason with only 5 % of the votes.
Intentions of recommending a specific vehicle

AS were asked why they would recommend a specific vehicle. The results of the Likert-scale show that 79% partly or strongly agreed with reducing existing stock, followed by 76% which partly or strongly agreed to the statement, selling the vehicle with the highest margin would be the main reason. Personal conviction ranks on number three, with the highest Standard Deviation (SD) of 1.42, which indicates that AS rated this answer more ambivalently than the others (see Table 2).

AS statements:
»We guide customers to the right vehicles for them.«
»Follow-up business is critical when recommending a vehicle.«

<table>
<thead>
<tr>
<th>Intention</th>
<th>(strongly) disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>partly agree</th>
<th>(strongly) agree</th>
<th>Median</th>
<th>SD</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>reduce stock/inventory</td>
<td>21 %</td>
<td>12 %</td>
<td>67 %</td>
<td>4</td>
<td>1.39</td>
<td>3.61</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>offer highest value for money</td>
<td>33 %</td>
<td>33 %</td>
<td>33 %</td>
<td>3</td>
<td>1.12</td>
<td>2.94</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sell vehicle with highest margin</td>
<td>24 %</td>
<td>24 %</td>
<td>52 %</td>
<td>4</td>
<td>1.19</td>
<td>3.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sell vehicle you are the most convinced of</td>
<td>30 %</td>
<td>21 %</td>
<td>46 %</td>
<td>3</td>
<td>1.42</td>
<td>3.30</td>
<td></td>
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</table>

Table 2 Intention when recommending a specific vehicle

Correlation between the location of the distributor and his perception of EV

The dealers’ locations were scaled by their population density. The coefficients of determination indicate no significant correlations, neither between the number of stated negative or neutral attributes nor the stated positive attributes and the population density. Values remain <0.3, which makes them negligible.

Perception of Electric Vehicles

Automobile Salesmen’s image of EV

The perception of EVs has been explored with a five-step Likert scale for each bipolar pair. This semantic differential consisted of 15 bipolar pairs of adjectives (see Table 3).

In view of the semantic differential, personally interviewed AS mentioned that EVs could be anything, i.e. they can have the same advantages or disadvantages as regular passenger cars with ICE. However, statements on the image of current EVs, which not only refers to models on sale but also concept cars or prototypes of future EVs, allowed to identify what the image of EVs is really about and to outline it.

Negative attributes (NEG) – Mean <3

EVs were associated with high retail prices by 78% of the dealers, which considered them as very expensive. According to statements, currently prospected retail prices are seen as a high entry barrier into »e-mobility«. On the other hand AS mentioned that customers are very shortsighted regarding their mobility costs. According to dealers high fuel prices in summer 2008 made consumers flock to auto dealers, trying to trade-in their cars and get deals on more fuel-efficient models instantly. This trend disappeared with fuel prices dropping in autumn. Interestingly, vehicles with electric
motors were associated rather with weakness and slowness (50 % each) than with strength and speed (19 % each). Personal interviews showed that 28 % of AS with some background knowledge on electric consumers and their impact on the range of EVs saw them as more austere than luxurious. However, 53 % stated that EVs could be both austere and luxurious, depending on their battery capacity and technical measures to reduce their consumption of electricity.

The attribute small, associated with EVs by 59 % may be considered as negative since AS stated in interviews that they can picture electric drivetrains due to their performance and range rather in small than large cars, which limits the range of application for electric powertrains. This is also reflected in the 38 % of AS which think that EVs are not suitable for daily use, thereof 47 % who stated that they also picture EVs as small. The bipolar pair boring-excit ing got an equal agree/dis agree-share of 34 %. Some interviewees for example mentioned only small, low-speed electric vehicles, also known as neighborhood vehicles in the US, when asked for their picture of an EV, whilst others mentioned breathtaking, low-volume produced electric sports cars, e.g. by small US-manufacturers.

**Positive attributes (POS) – Mean < 3**
Also 34 % of AS would call EVs safe. Half of the participants stated that EVs are not more or less safe than regular vehicles, which means that 16 % think that EV technology has a negative impact on the overall vehicle safety. Some dealers said that they could see problems with batteries catching fire like heavy duty notebook or cell phone batteries with high energy densities sometimes do. EVs are expected to be of high quality, as 38 % stated. However, there were voices saying that EVs may be of poor quality since they currently often come from very small, low experienced manufacturers who need to be profitable despite their very small production volumes.
More than half of AS (56 %) take EVs seriously, and 28 % said that they are as attractive as ICE-models. Another 41 % think they are even more attractive. Also 41 % said that EVs are practical. Regarding the comfort, 44 % consider current EVs as comfortable.

Despite all critics given by AS, e.g. regarding battery production and recycling or non-CO₂-neutral sources of electricity, 78 % think that EVs are good for the environment, with a median of 4.5. After all, 47 % think that EVs are close to reality. In total, shares of negative and positive attributes almost equal with 34,02 % and 34,23 % respectively. Neutral votes have a share of 31,75 %. Each individual participant’s overall attitude, based on the ratio between POS/NEG and personal statements has been analyzed separately. Subsequently, the participants have been clustered into four groups, based on the described two cluster criteria (see Chapter »Data analysis«).

**Identified characters (Typologisation of AS)**

**The strict Rejecter**

AS’s statements:

»Cars are getting cheaper and more environmentally friendly anyway. Why should I pay more for environmentally friendly technology?«

»EVs are quite dangerous for pedestrians because you cannot hear them.«

»A single volcano eruption emits more CO₂ than all passenger cars together.«

»Everybody talks about EVs, but no one wants them.«

»If this is the future of passenger vehicles, I will stop selling cars.«

None of these participants would recommend Battery Electric Vehicles (BEVs) or EREV to customers (100 %). Instead, 90 % of the strict rejecters would recommend well-known Petrol or Diesel ICE. As encountered during personal interviews, the introduction to markets, opportunities, technologies, advantages or other information did not change their opinion. No current nor future markets were seen for any kind of EV at all.
Some interviewed AS stated that they perceive current passenger vehicles as already high efficient and only marginally harmful to nature. A total of 83 % of the strict rejecters thinks that passenger vehicles do not cause most of the environmental problems. In return this means that 17 % consider cars as harmful to the environment but still would not support environmentally friendly technology in them. Also 75 % of the strict rejecters think that there will be no increase or even a medium to high decrease of their maintenance and spare parts turnover as well as their dealer margin when selling EVs (see Figure 3).

The rejecting Environmentalist

AS’s statements:

»Cars don’t cause most environmental problems, but they will if emerging nations implement individual transport with today’s propulsion technology.«
»The technology of BEVs is not ready for mass production.«
»Batteries will remain a critical factor – especially their disposal or recycling. Hydrogen is the better energy storage.«
»It depends on where the power comes from. With our current energy sources EVs are not environmentally friendly.«
»I don’t want EVs. They are a waste of time. Hydrogen is the future.«

All of the rejecting environmentalists support environmentally friendly technologies in passenger vehicles by their willingness to pay more for them. However, they uniformly do not think that passenger vehicles cause most environmental problems. On the other hand, 50 % of them state that EVs are not environmentally friendly or even harmful to the environment and 100 % associate EVs with more negative than positive attributes. Using batteries for the electrification of passenger vehicles is not seen as the right way towards more sustainable means of transportation. Hydrogen fuel cell vehicles would be recommended by 40 % of the rejecting environmentalists, another 40 % would recommend fuel-efficient hybrid vehicles and both diesel and CNG/LPG would each be recommended by 10 %. Other fuels such as biofuels or hydrogen, with the latter rather used in ICE than fuel cells, were mentioned by interviewees as the better alternatives. 83 % of EV rejecters stated that they expect medium to high losses in their maintenance and parts turnover when selling EV and 50 % were afraid to face losses in their dealer margin.

The Opportunist

AS’s statements:

»EVs will increase traffic in my showrooms. There will be lots of new customers coming from other manufacturers.«
»There will be a shift in the dealership structure – less workshops, more distributors. Particularly if EVs become a standard.«
»Without EREV they [J.K.: cooperation partner] won’t survive on the German market. They finally need to be one step ahead instead of two steps behind.«
»Environment comes secondary. I would only pay more for environmentally friendly technology if the TCO decreased significantly.«

A 75 % majority of the opportunists does not think that passenger vehicles cause most environmental problems and 100 % consider EVs as environmentally friendly. In
personal interviews some of the opportunists mentioned cost advantages and supporting legislation as main reasons and driving forces for the improvement of fuel consumption or a change in drivetrain technologies. Range, charging time, missing safety features, infrastructural challenges and other factors are issues mentioned by the opportunists in personal interviews. However, as encountered in interviews, more information on technology, markets and individual opportunities, e.g. fleet sales, cooperations with energy suppliers, new customers and the competitive advantage of a larger product range influenced their perception of BEVs and EREVS. They could picture electric powertrains in the very near future (100 %), this mainly in small cars and sports cars as stated by the interviewees. Opportunists also consider EV technology as exciting (100 %) and as a great opportunity for the automobile industry to return to its former strength. This is reflected in all 100 % of the participants who expect stable or increased dealer margins as well as parts and maintenance turnover when selling EVs. The opportunists would not pay more for environmentally friendly technology, yet 75 % consider EV as not expensive compared to ICE models.

The Enthusiast
AS’s statements:
»I would even become disloyal to my manufacturer if another would come up with an attractive EV first.«
»Kids are already asking for CO2-levels. It’s the new key figure, which replaces horsepower.«
»People feel more and more bad about driving big SUVs [J.K.: Sport Utility Vehicles]. An EV can upgrade someone’s reputation and appease one’s conscience.«
»Amongst AS there is a positive climate towards EVs.«
»We don’t need cars with ICE anymore.«
»People wake up when they hear »ecological«.«
»Electric vehicles will soon be a standard. There will be a run on them.«
»Roll them out tomorrow!«

These interviewees and participants totally supported EV-technology. They considered electric drivetrains as the propulsion technology of the future. Some of them stated that they would prefer to sell EVs only or that they can see small EVs as second or third cars for short distances. Moreover, 80 % of them would recommend an Electric Vehicle to their customers as first choice, including hydrogen fuel cell EVs, BEVs, EREVs or hybrid EVs. The two main reasons for these recommendations are environmental friendliness (20 %) and a guaranteed future (20 %) of the propulsion technology. Although 90 % of the enthusiasts do not think that passenger vehicles cause most environmental problems, they are all willing to pay more for a cleaner propulsion technology. Furthermore they uniformly consider EV technology as environmentally friendly. A majority of 80 % thinks that existing, brand-loyal customers would switch from ICE to electric motors. In return this means that only 20 % think EVs would attract new customers. Some AS said that if EVs are sold only, this could increase the chance that existing customers would become disloyal and switch brands in order to buy regular vehicles with ICE. Also 90 % of the enthusiasts expect stable or increasing dealer margins and 50 % can see additional spare parts and maintenance turnover.
Success factors

In personal interviews AS named critical factors for the success of a new propulsion technology at the Point of Sale. In remembrance of the emerge of CNG/LPG vehicles in the nineties, AS stated that they »will have to spend much more effort on the persuasion of customers« and that »cooperations with local energy suppliers are important«. They also said that »Information and personal experience are critical success factors for the electrification of the automobile« and that »currently there’s not enough of both«. »The technological advantage of an EV must [J.K.: not only] be noticeable to customers« but communicated to them. A »High-level advisory capacity is critical for the success of EVs«, especially because »EV-customers will be much more price sensitive«. An AS also stated that »people [J.K.:would] do anything for a good deal, even queuing up at the gas station for two hours. EVs may be less comfortable due to the weight and power consumption of comfort features, but customers will lower their standards if they can save money on running costs«. On top of that some AS stated that »prices at the pump are one of the main driving forces for environmentally friendly technologies«. A current challenge for EV technology is the range, but according to some AS »customers don’t need range. They just want it«. After all, AS considered infrastructure as the key factor for the breakthrough of EV technology: »It’s the chicken or egg-dilemma: EVs need infrastructure to succeed, but there won’t be infrastructure without EVs«.

Discussion, application of results and conclusion

This article exclusively deals with AS’s image of EVs and their intentions for recommending a certain propulsion technology, which merits further discussion. All other results of the survey may be shown and discussed in following articles.

Further studies may aim to replicate the results of the image analysis. This could provide deeper understanding of the identified characters (typology) and clarify if the developed cluster can be transferred to other manufacturers or markets (countries). Regarding the opinion leadership of AS, further research could generate knowledge on the impact of AS’s opinion on the notion of their customers. The AS’s image of various EV-technologies such as BEVs, EREVs, Fuel Cell EVs or Plug-In Hybrid EVs (PHEVs) may be analyzed separately. The results could be correlated with the customers’ image and, in the near future, also with the success of these technologies. A number of BEVs, PHEVs and EREVs for instance are expected to arrive on markets as early as in 2011.

The results are not in line with the study »Elektrofahrzeug-Technologie Trend-Studie 2009« by WPC (cf. WP Consulting 2009), which claims that the image of EVs recently changed from small, rickety and boring to dynamic, powerful and interesting. In fact, the image of EVs remains diverse, yet with a slightly positive tendency. The figures of strict rejecters and enthusiasts almost equal, with 38 % and 31 % respectively. Importantly, the EV-rejecting environmentalists and the opportunists taken into account, more than half (56 %) of AS currently have a rather negative attitude towards EVs. BEVs would be recommended to customers by only 6 %. As personal interviews showed, one of the reasons for recommending a propulsion technology is that AS are mainly influenced by customers demands. Some of them may have answered what they think customers would, although they were asked for
their personal opinion. Taking AS’s complaints about the absence of information, training and personal experience alongside their poor knowledge about EVs into consideration, they might also feel more on the »safe side« with recommending a technology they already know.

At this time it is questionable if AS actively deal with EV issues. The deviance regarding the level of knowledge between customers and AS may not be as high as expected. The interviews showed that AS are currently rather inactives or advice seekers than opinion givers. AS might need to be assisted in their transition from inactives to advice seekers and, subsequently, to opinion givers. They may be trained in order to act as »consultants« rather than salesmen since there will be a great demand in knowledge and information on the technology, benefits and disadvantages of EVs. The calculation of the TCO for example, which particularly for EREVs or PHEVs are based on a larger number of factors than for ICE vehicles (e.g. public or domestic infrastructure and upfront investments, battery range and lifespan, governmental incentives, tax cuts etc.) need further expertise. Instead of only selling vehicles, parts and services like maintenance, additional warranty, insurance or other, AS may become agents for energy or infrastructure suppliers as well, due to EVs specific requirements regarding their »fuel« supply. This development may even be a bidirectional one: Currently there are a number of EV pilot projects which include cooperations between automobile manufacturers, energy or infrastructure suppliers and local authorities which provide services and products formerly provided by AS. Moreover, it may be possible to transfer the image of an energy supplier to an EV-manufacturer and vice versa. Either way, it is necessary to further rethink and do research on the environment EVs will be distributed in and what impact their image has, regardless of the specific EV technology.

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But What About Dealers? – Image Analysis of Electric Vehicles Amongst Automobile Salesmen

DIEZ 2006

HARRIS INTERACTIVE 2009

LAMNEK 1998

LAZARSFELD et al. 1944

MEYEN 2001

MILLER 2007

NOELLE-NEUMANN et al. 1999

PULS MARKTFORSCHUNG 2009

SCHERER 1990

SCHÖNCE/KÖH 2005

WEIMANN 1994

WIKIPEDIA 2008

WILLIAMSON 2000

WIPPERMANN et al. 2008

WP CONSULTING 2009

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Joachim Koepf

Joachim Koepf worked for ROBERT BOSCH in Germany/South Africa in Marketing and Sales and for CHRYSLER INTERNATIONAL in Germany in Product Management and Pricing. In 2008 he graduated as Bachelor of Arts in Technical Documentation at the University of Applied Sciences in Karlsruhe. Currently he is enrolled in the Master’s programme at the University of Applied Sciences Hamburg, majoring in Information Sciences and Management.

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