

Summary

The sales of electric vehicles - the role of the salespeople and the customers' assessments

TOI Report 1639/2018
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Oslo 2018 70 pages Norwegian language

All vehicle buyers consider reliability as the most important thing about the car to be purchased, then follows the economy. Buyers of battery electric vehicles (BEVs) and plug-in hybrid vehicle (PHEVs) emphasize environmental characteristics, whereas petrol/diesel (ICEVs) vehicle buyers put traffic safety high. The BEV buyers are well prepared when they come to the sellers, having decided which kind of car to buy. A minority of the customers consider their decisions to be influenced by the seller. Customers get as much information from social contacts and media as from the salespeople. For all car types, the customers believe that the sellers do a very good job. Sellers analyse customers' needs, providing accurate information of the public incentives as well as the technical and economic characteristics of the vehicles. Considering the BEVs to be the future, the salespeople in Norway appreciate the BEV sales. Sellers get the same training for all cars sold by their companies, thinking they treat all car types in the same way. ICEV buyers appear to get more attention from the sellers, maybe because these customers need more information. These are the main results from surveys of 1000 vehicle buyers in Sweden and Norway as well as interviews with Norwegian car salespeople.

Increased knowledge of sellers needed to increase the sales of BEVs

Ambitious climate and environmental goals both internationally, nationally and locally make new technology and transition to fossil-free energy sources important for reducing emissions from motor-vehicle traffic. Both the Swedish and the Norwegian governments have adopted transport and climate policy targets that require the rapid phasing out of petrol and diesel-powered cars. In 2016, the level of CO₂ emissions in Norway was at the same level as in 1990, while there was some reduction in Sweden.

Electrification is a way to reach these goals. Norway is in 2018 the country to have the highest diffusion of BEVs. Studies of the Norwegian development show that satisfactory results require efforts and interaction between several stakeholders at several levels of society, see figure S.1; such as global and national authorities adopting incentives and framework conditions (see table S1). Actual stakeholders are local authorities facilitating charging and parking infrastructure; the automotive industry ensuring training for salespeople and focusing their marketing on new car types; environmental and motoring organizations affecting members and individual car buyers who can change their attitudes to new vehicle types. In addition, car manufacturers abroad can provide the development of zero-emission vehicles, providing more models that customers can choose from.

Only a few studies of the car sellers and the customers' perception of them exist so far. Consequently, the purpose of the BiRoll project is:

"Understanding the car sellers' role in the sale of electric cars to be able to propose changes that could lead to increased sales of electric cars. The project aims to provide increased knowledge of how sellers influence the customers in their choice when buying a car."

Table S1: Incentives for electric vehicles in Norway and Sweden. Source: Figenbaum and Kolbenstvedt 2015a

Governmental and local incentives in Norway	Governmental and other incentives in Sweden
Exemption from VAT and one-time registration tax	Environmental reward, a one-time sum granted to those who buy zero-emission vehicles.
Reduced annual vehicle license fee	Lower benefit tax for electric company vehicles
Low corporate tax for taxis	
Reduced benefit tax for company BEVs	
Reduced toll fees and ferry fares	
Free parking	
Access to bus lanes	
Financial support for charging stations	Building charging stations
Law supporting charging stations in apartment buildings	
Charging stations	
Special license plates	

The project includes online questionnaire surveys of approximately 1,000 car buyers in Sweden and Norway as well as interviews with sellers and dealers in Norway. People having bought BEVs PHEVs or ICEVs during the latest 12 months, answered questions about factors influencing the choice of car type. They also answered questions about their experiences of the sellers and the sales process. This report presents a simple analysis of these data, relating the results to the salespeople's experiences of the customers and their opinions of the future vehicle electrification. The response rate, especially for the Swedish survey data, is relatively low. In Norway, the survey is limited to the customers and the sellers of only one brand, Nissan. The results must therefore be interpreted with caution. The results are, however, supported by the results of previous studies.

The purpose of this report is to show the main patterns in the car sales process, making a basis for further analyses, where results of the interviews with the Swedish car sellers will be included.

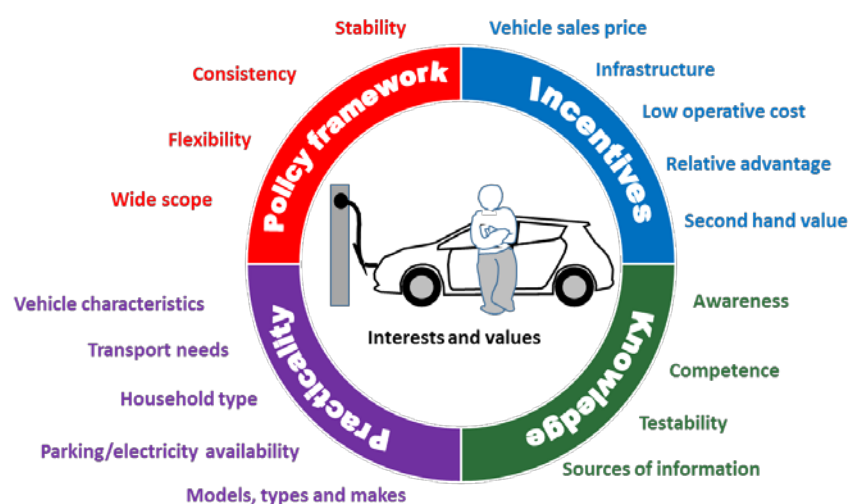


Figure S.1: Many factors affect the interaction between the salespeople and the customers. Source: Figenbaum and Kolbenstvedt 2015a.

The typical electric car buyers are early adopters

BEV buyers participating in these surveys in Sweden and Norway are similar to BEV buyers from previous surveys. They are younger, have better education, are more vocationally active and have more children than ICEV buyers. They belong in both countries to the early adopters needed to start the diffusion process. This finding differs

from some of the Norwegian sellers' opinion that "now all kinds of customers buy electric cars".

Swedish BEV buyers are more typical early adopters, differing more from the ICEV buyers than the Norwegian BEV buyers do. This finding applies, for example, to the percentage living in detached houses, giving them an easier opportunity to charge a BEV. This pattern for differences between the buyer groups is the same for Nissan buyers as for the entire car purchaser group.

In Sweden, the diffusion of PHEVs has come further than in Norway. The PHEV buyers appear to resemble the early users. Among the new car buyers in this project, the PHEV buyers have the highest proportion of men, most households with children, and are also younger than the BEV and ICEV buyers. ICEV owners are more like the total population than are the BEV and PHEV buyers.

The Swedish BEV buyers could be expected to have a higher income than the Norwegian BEV buyer, as the Swedes do not benefit from an incentive package giving the BEVs a lower purchase price (exemption for registration tax and VAT). However, the survey shows that Swedish BEV buyers do not have a higher income than the Norwegian ones.

Norwegian studies show that BEV owners have approximately the same total annual mileage as other car owners. Owners of BEVs, PHEVs and ICEVs make about the same number of trips over 100 km per month. BEV households handle the challenges of the driving range by the fact that most them, more than the total population, have another car, usually an ICEV.

The buyers' position on the diffusion curve indicates when the process will be sufficiently advanced to reduce incentives. Based on the market shares in Sweden and Norway, early adopters of BEVs will still dominate the buyer group. If you see BEVs and PHEVs in one, Norway is on its way to the early majority.

Buyers' priorities indicate what may increase the sales of BEVs

Own needs and characteristics of the car come high on the list when the buyers say what factors meant most for their choice of car. The buyers want the best car for their own needs. In Norway in 2016, four out of five BEV, PHEV and ICEV buyers put this factor on top. This question was not asked in 2018. The main motives are in both countries, every year and for all types of cars, related to economic factors and reliability. The five crucial factors for choosing a car were:

- BEV buyers: Reliability, Purchase price, Low electricity costs, Low service/maintenance costs and Environmental features.
- PHEV buyers: Reliability, High quality, Environmental features, Technology and Driving comfort.
- ICEV buyers: Reliability, High quality, Driving comfort, Road safety and Value for money. These are arguments that should be considered used when selling electric cars to ICEV buyers.

Differences between customer groups found in this project, are in line with other studies:

- Buyers of ICEVs emphasize road safety whereas buyers of BEVs emphasize environmental features.
- The Swedes put more emphasis on the car's environmental features than do the Norwegian buyers.

- The Norwegian buyers emphasize economy more than the Swedish buyers do, especially the purchase price. This finding may be caused by the incentives in Norway reducing the purchase price to the same level as the ICEVs in the same segment.

The fact that the diffusion is moving faster in Norway, is quite obviously related to the extent of the incentives offered for BEVs in Norway. The incentives existing in Norway for 20 years, show the motor-vehicle industry that the authorities are focusing on electromobility. Thus, the incentives contribute to new BEV models arriving early in Norway, giving the customers a better range of models to choose from. However, without a range of BEV models to choose from and infrastructure facilitating the use of BEV, the incentives will have no effect.

Moreover, the diffusion process has its own dynamics, where early users affect next-generation users. In this process, friends, family, colleagues and social networks as well as BEV owners' organizations also perform a "sales role". Nine out of ten Norwegians know someone who has a BEV. In 2018, BEV buyers have affected more friends to buy electric cars. Particularly important is the information from other sources than the car dealers, in the first phase of the sales process as well as after the sales when buyers need support for the practical use of the BEVs.

The customers have a positive experience of the sales process

The sale of cars and the interaction between customers and sellers make a five-phase communication process:

1. The knowledge phase where the buyers must get information about the new technology.
2. Persuasion in which the relative benefits of the new technology must be highlighted.
3. The decision phase where the economic facts are important, and the balancing of the pros and cons must be done.
4. Implementation requiring information concerning practical use, charging system, etc.
5. Confirmation when the of follow-up from the seller may be of use to both parties.

This project shows that BEV customers in both countries were well prepared before they came to the sellers. They were well informed about BEVs, and many had driven BEVs and visited other sellers before they came to the retailer where they bought their BEV. In 2018, the first information about BEVs came primarily from social and traditional media, and family, friends and colleagues played a less important part than during previous years. The ICEV buyers gained their first information mainly from the sellers. Advertising from dealers was not perceived as an important channel, neither in Sweden nor in Norway.

A larger share of the Norwegian car buyers considered the sellers updated on BEVs than the car buyers in Sweden. In general, however, the car buyers in both countries were pleased with the salespeople's efforts and their way of working:

- The sellers analysed the buyers' needs and listened to what the buyers said. Almost no one perceived that the seller tried to sell more than the customer wanted buy.
- The sellers were updated and provided relevant information about technology, car types and the BEV features and operating costs.
- It was easy to get an opportunity to test drive the car.

- The sellers were updated on government incentives and informed the customers about these.

The buyers considered the information they received to be correct, a fact which gave them confidence in the sellers. However, since most buyers had already decided which car to buy when they came to the sellers, there were relatively few who agreed that the sellers had affected their decision. This situation was the case especially in Sweden, where the sellers affected the decision or made only one of ten potential buyers change their choice.

In Norway, two out of ten BEV buyers and three out of ten ICEV buyers of Nissan cars stated that the sellers had affected their decision. This situation may be due to the Norwegian Nissan sellers' longer experience and more expertise in BEVs than the Swedish sellers, a fact which appeared in the buyers' assessment of the sellers' information.

The surveys indicate that information after the purchase is an important part of the sales process itself. The buyers have received a lot of information after sales from both sellers, internet, friends and the BEV organization in Norway. After-sale information does not affect the choice of vehicle type, but it affects the satisfaction of the customers.

A large majority of those who bought a BEV, are satisfied, wanting to continue using this type of vehicle, a fact indicating that the buyers are happy with the sales process. The share of Nissan BEV buyers in Norway who wanted to buy the same type of vehicle next time, dropped from 91% in 2016 to 67% in 2018. This reduction may be caused by a difference in the questions asked between the two surveys. In 2016, respondents were asked if they would buy the same car type, whereas in 2018 they were asked what type of car they would buy next time, a more open question.

In 2018, more than a third of the Swedish ICEV buyers considered buying a BEV or PHEV next time. Among those who bought an ICEV from Nissan, the proportion was somewhat higher, 41%. In Norway in 2018, the figure for Nissan ICEV buyers was 26%. These figures indicate that there is a good potential for EV sales.

Agreement between the sellers and the customers in Norway

In general, the stories of the sellers and the customers agree. The minor differences that this project finds may be due to sampling bias. Dealers and sellers in Norway state that they treat the sales of ICEVs and BEVs in the same way. Whatever car type, sales are based on analysis of customer needs. The sellers want to satisfy the customers' needs, thereby achieving satisfied customers. Being familiar with the BEV incentives, the sellers say that the economy decides. In addition to the economic incentives, lower fuel prices, service and spare-part costs also mean a lot for the overall economy of the BEVs. The salespeople say it is possible to sell a BEV to a customer intending to buy an ICEV, and vice versa, if the analysis of the customer's need indicates so.

The surveys show that the salespeople adapt their sales procedure to the various customer groups. The ICEV buyers, who are often older and less prepared than the BEV buyers, received more attention than BEV and PHEV buyers in the sales process. In both countries, a larger share of ICEV buyers:

- Got information about technology and road safety.
- Were asked about their vehicle needs.
- Perceived that the sellers listened to what they said.
- Were shown cars that could fit their needs.
- Were offered price discounts and additional equipment.

On the other hand, BEV buyers received more information about factors relevant to this vehicle type, i.e.:

- Environmental features of the vehicle.
- Vehicle operating costs.
- Range and charging.
- Economic and other benefits from the authorities.
- Convenient use of the car.

A workshop with Nissan Nordic and Nissan Norway confirmed the results and the consensus that the BiRoll project finds between sellers and customers.

A quick review of the websites of six brands selling both BEVs and ICEVs in Norway shows great variation in the presentation between the car brands. This variation may be due to real differences between these brands or variation over time, a question which is not possible to determine based on this review.

Competent and positive Norwegian salespeople

The interviews with the salespeople in Norway showed no signs that sellers or dealers prefer to sell ICEVs rather than BEVs. Only one brand, Nissan, was included in the study of the sales process in Norway. No significant barriers to the sale of electric cars were found at this brand's dealers. The salespeople appeared positive, proud and enthusiastic about the sale of BEVs.

The sellers saw few or no disadvantages of selling BEVs. BEVs, however, imply reduced sales of spare parts and less work for the workshops. The entire sales process for BEVs takes on average half an hour longer than the ICEV sales, but the sellers do not lose income when selling BEVs. The BEV manufacturing is currently unprofitable for the manufacturers because the production volume is low when no major markets are promoting BEVs.

The sellers considered necessary the maintenance of incentives in Norway. Efforts from manufacturers abroad and knowledge of how these consider larger markets than Norway are also needed. The salespeople say:

The authorities must "secure the future by sustaining the incentives.... Zero emissions are the future. Hybrid will disappear. Hydrogen becomes too expensive and lacks infrastructure. ... Long-range cars come and will do better, making it easier to buy electric cars."

"There is such a difference from ICEVs that electricity will anyhow be a big advantage ..."

"The role of the electric car in the future is exciting. I think it will be all over the place. All models are ready for electricity."

"The electric car has come to stay. There should be better infrastructure. Regarding taxes, VAT will come. It's a matter of time. Raw materials are a problem. The production of BEVs is still not profitable. The electric car is, nevertheless, very positive, simply very comfortable to have an electric car."

"I look forward to the future of electric cars. Sales will increase significantly up to 2023 - fivefold. The range is increased and increased, as soon as the holiday cabin is well within reach of most."

"The most important incentive is no fees and VAT, then (the exemption) toll fees. Access to bus lanes is not needed ... Customers are largely updated and know that there are many incentives ... The incentives are crucial. We would not have sold electric cars without the incentives."

"The customers are concerned with (exemption from) tolls but not of (access to) the bus lanes ... Some owners can get the car "financed" by the toll-fee exemption alone."

"Customers are considering the total monthly costs Customers do not ask about the incentives. They know them in advance, largely."

The sellers considered the incentives important, but the overall vehicle economy, which also includes low fuel and service costs, is more important. The sellers differed in opinions of which incentives matter most, probably local conditions. Where there is no toll in the local area, exemption from toll fees will be less important.

Conclusions

A main conclusion from BiRoll project is that the sales process works well, and that sellers do their job professionally. According to the customers and the Norwegian salespeople, the salespeople are not a barrier to the sale of BEVs. Some challenges or potential improvement in the future may be:

- The Swedish sellers may have more to learn about BEV.
- Information after the sale may probably be developed further. Collaboration with the BEV-owners' association is important in Norway. In Sweden, the establishment of a BEV-owners' association should be considered.
- In the next phase of the diffusion process, when new ICEV owners are to be motivated to purchase BEVs, customers will probably be less prepared and updated, thus needing another marketing approach.

The main challenge in the next few years is to ensure that the political pressure in Norway is not reduced, to prevent incentives being removed prematurely. In Sweden, the introduction of more incentives may be important. Strategies to meet these challenges can be:

- Cooperation between environmental organizations and motoring associations.
- Support from the industry to establish and operate a powerful BEV-owners' association in Sweden.
- Maintain the incentives in Norway until the diffusion has reached the early majority. Then plan for the predictable and gradual downsizing of the incentives.
- Develop new incentives and evaluate any downsizing of the incentives.