

Managing Variety on the Internet - Strategic Competitive Advantage in the Automotive Industry –



Bjoern Mayland⁵, Dr. Thomas Heiland⁶

Abstract

The use of digital technologies enables the automotive industry to visualize all vehicle components in high, nearly photorealistic quality.

The car configurators of the different car manufacturers support the sales process and lead the customer from the Internet to the dealership, thereby making an important contribution to the worldwide dealer organization.

As of today, it is hard to measure the investments of the manufacturers in sales systems that incorporate multiple types of media. Connecting the car configurators on the Internet to the internal sales systems allows for the measurement of the conversion rate and the associated return on investment (ROI). In the following, the Porsche Car Configurator will be used as an example to show the optimization of the processes involving the measurement of the conversion rate.

1. Introduction

The increasing variety in the range of models offered by the car manufacturers is the result of ever increasing consumer demand. The cause for this is a longing of the consumer for customization, a longing that has existed as long as cars exist. In the early years of the industrial automobile age, the color black dominated and Henry Ford, founder of the Ford Motor Company in 1903, described the color choices for the mass product Ford T (“Tin Lizzy”) in a very supply oriented way in 1913: “A customer can choose any color he wants, given he picks black” (“Nur Schwarz”, 2005).

⁵ Biographical Note:

Bjoern Mayland is a 4th year Commerce student majoring in Marketing and E-Business at the University of British Columbia in Vancouver, Canada. During his internship at Dr. Ing. h.c. F. Porsche AG he primarily focused on the further development of the Porsche Car Configurator.

⁶ Biographical Note:

Dr. Thomas Heiland works in the Marketing Communications department of Dr. Ing. h.c. F. Porsche AG in Stuttgart, Germany and is responsible for the E-Business field. He develops innovative, sales-oriented applications for the Internet and Intranet of the small German sports car manufacturer.

With each model year change the individual and extra options offered increased and mass customization established itself. Aside from the highly complex technical options the manufacturers - and in increasing fashion the suppliers - developed nice and comfortable interiors, made out of materials such as leather, wood, carbon, or aluminum, to upgrade and customize the vehicles.

At the end of the 20th century the Internet began to revolutionize the sales processes of the automotive industry. With the increasing spread of the worldwide web the traditional sales processes (e.g. personal selling) for new, as well as used cars, changed.

Where, in 1996, not even all German car manufacturers had a website, in 2004 85 % of all Internet users planning on purchasing a car will first get information from the manufacturers websites, according to a European study (AutoScout24, 2001). In some European countries, obtaining information through the Internet has taken on greater importance than a dealership visit. No one would have expected such a radical change of the processes involving the collection of information, and thereby the way a car is sold, ten years ago.

2. The Spectrum of Individual Options

Most car manufacturers offer a wide spectrum of individual options. Premium brands, like Mercedes-Benz, Audi, BMW, or Porsche, go even further and offer exceptionally high quality interior and exterior options, usually as a sub brand with an independent name to transport the value of these products. Whereas Audi and Porsche use the name "Exclusive", Mercedes-Benz labels these products as "Designo" and BMW as "Individual".

The distribution of these high quality individual options continues to take place at the dealerships but oftentimes with the support of a specially trained sales force that not only has detailed product knowledge but also special knowledge about the affluent premium target group and their demands. This premium target group has an above average income and different expectations when it comes to the sales pitch and the presentation of the product.

3. New Forms of Product Presentation

In order to satisfy the different target groups, some car manufacturers have, in the recent past, introduced innovative sales supporting modules on the Internet, as well as in the dealerships and at trade fairs. Aside from the presentation of samples (leather, cloth, color cards), the presentation of individual options is supplemented through the use of multimedia technologies (refer to Exhibit 1). "Big screen" applications using plasma or flat screens as output devices are more frequently used and enable a high quality visualization of a specific vehicle in conjunction with the corresponding configuration software. The possibilities of calibration that modern plasma screens offer allow an authentic display of the colors and add a virtual dimension to the buying experience.

4. Digital Visualization on the Basis of CAD Data

Whereas in the past demonstration of variety was limited to a few models being shown in the showroom of a dealership, the use of digital technologies makes the visualization of all standard and individual options possible and opens up a whole new dimension of vehicle presentation. For example, Porsche offers the visualization of the complete range of individual options, as well as Porsche Exclusive and Exclusive Custom Tailoring features, on the Internet and in selected dealerships.

The basic module for the presentation of the various options is the Porsche Car Configurator, which can also be found on the websites of the various country subsidiaries. Using a 50" or 60" plasma or flat screen as the output device, the sales force can individually customize the car of a customer with all available options, ranging from "adaptive sports seats" to a "dashboard in exterior color" (modular customization).

This sales innovation enables a whole new level of customer dialogue and helps in the sales conversation with a convincing visualization of the vehicle (refer to Exhibit 2).

5. Digital Revolution in the Automobile Sales Process

Transferring original parts into digital format and displaying them in a virtual interior of a vehicle equals a revolution in the automobile sales process. Through the use of this new technology, all vehicle components, including those that primarily called the storage shelves in the warehouses of the manufacturers and suppliers their home, come to new life in the dealerships and are able generate additional sales.

"Customers do not buy what they cannot see." This motto has become irrelevant in the age of digital visualization. There now exists the possibility to combine all available colors, materials, and surfaces and view and evaluate them on multiple output devices, thereby greatly enhancing sales. It is mathematically obvious that the number of possible combinations is nearly infinite with such quantitative modularization (FORWIN, 2002).

Deciding between a big or small aluminum package certainly becomes much easier in the future. The combination of a speed yellow ventilation shaft with a three-spoke wooden sports steering wheel still remains a question of good taste but the customer is allowed to configure a vehicle as he desires. The customization trend in society can thereby increase the revenues of the car manufacturers.

The increasing transparency in the variety offered is a chance for both customers and the sales department. It is proven that the quality of a sales call increases with more information transparency and the amount of time it takes to complete a sales call decreases. This is due to the fact that the technology used is developed exclusively by the manufacturers or regional offices and made available to the dealerships (FORWIN, 2002). These therefore do not have to use up any capacity to develop themselves, which frees up resources for further sales activities. The result is an increase in the quantity and monetary value of completed sales transactions.

6. Measurement of the Conversion Rate

A market researcher would ask: How can I measure the real impact and success of these new virtual sales tools? The question about the conversion rate can be answered by linking the digital sales databases of the manufacturers with the dealership databases.

In the following, a potential customer that first comes into contact with an automobile brand on the Internet will be analyzed: As a first step, the prospective buyer visits the website and gets an overview over the models offered.

As a second step, he picks one model and obtains information on the model pages via pictures and text descriptions. He gets a good overview over the variety offered by studying the standard and individual features, technical data, and prices.

The interested party now proceeds to the configurator and assembles their dream car. In the case of the Porsche Car Configurator, next to the type of engine, exterior and interior colors, and wheels, all interior options can be visualized with the help of a 3D-configuration module.

After completing the configuration process, the user can print out a picture of his car, send the configuration to another Internet user (Send-to-a-friend feature), or request a financing or leasing offer. Usually, the user is given the opportunity to contact a dealer of their choice and transfer their configuration via e-mail. Now it remains to be analyzed whether the user actually buys a car or not.

In order to be able to measure the conversion rate, the existence of a computer assisted dealership sales tool, like the Porsche Vehicle Sales Assistant, is mandatory. That means it must be possible to identify the customer on a digital basis from the very beginning of the sales process until the completed sale.

This “virtual tracking” process is illustrated in Exhibit 3 and starts with a prospect sending an e-mail directly from the car configurator to a dealer, thus indicating a clear buying motive.

After the interested party has entered all of their contact details on an Internet form (address, e-mail, phone number, preferred method of contact), the e-mail with the configuration can be sent to the dealer of their choice. At the same time the data from the configuration is saved on a server and labeled with a unique key and the date.

Once the e-mail reaches the dealership, a sales person opens the configuration and saves it on their own dealership server. Following this, first contact is made with the prospect via e-mail or by telephone, thus initiating the sales process.

The dealership sales modules, which are primarily developed by the manufacturers in cooperation with the regional offices, always contain a customer module that enables the clear identification of a customer. Given this feature, the saved configuration on the server of the dealer can be linked and matched to an existing customer. In the background, the customer database is filled with any new information provided by the customer on the website. This process is referred to as “matching” different types of information to a single customer.

Should the e-mail come from a new customer, a new entry will be made into the customer database.

Through this matching process, the configuration can now be clearly identified and even be counted. By using the date as a criteria, for example, all configurations made by a customer within a three month time frame can be looked at.

Another important element in the dealership sales module is the contract module that enables the completion of a contract and the order module, which is directly linked and directly sends an order to the manufacturer of the vehicle.

With the clear labeling of each Internet configuration and the connection to a date, all configurations that have led to a sale can be identified and evaluated. Thereby the process chain of a customer making first contact with the brand on the Internet to the ordering of a vehicle in a dealership is completed.

7. Conclusion

Being able to measure the conversion rate as a final step in the context of the configuration process can be seen as a major advance in virtual sales development. By determining the conversion rate, the return on investment (ROI) for digital modules can be measured, which, more and more, will lead to a shift of existing budgets from classical to digital media.

The increasing level of transparency regarding the range of models offered and digitally supported variety management offer new chances for the industry and create lasting strategic competitive advantages, which car manufactures and dealerships need to use to maintain their competitiveness internationally and strengthen their individual positioning.

These competitive advantages are as follows:

- Customization of products by consumers
- Increased transparency and efficiency through the reduction of iterative clarification processes
- Intensified customer interaction due to increased time capacity
- Increased revenues in the new car and car accessories business
- Higher customer satisfaction and retention

The current average profit margin of around 0.6 % is economically precarious (Zufriedenheit mit dem Hersteller/Importeur, 2005). The use of digital technologies as part of an intelligent marketing management on an instrumental level is an opportunity to increase the marginal return of each vehicle sold and possibly a way to improve the return on investment (ROI).

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Correspondence Details:

Dr. Thomas Heiland
- Dr. Ing. h.c. F. Porsche AG -
Porschestra. 15 - 19
71634 Ludwigsburg
+49 (0) 7 11 / 9 11 - 7 83 16
thomas.heiland@porsche.de

Bjoern Mayland
- Dr. Ing. h.c. F. Porsche AG -
Porschestra. 15-19
71634 Ludwigsburg
+49 (0) 7 11 / 9 11 - 7 87 17
bjoern.mayland@porsche.de