

# The Role of Reverse Auctions in Strategic Sourcing

.....

by

Stewart Beall  
CAPS Research

Craig Carter, Ph.D.  
Robert H. Smith School of Business  
University of Maryland

Phillip L. Carter, D.B.A.  
CAPS Research  
W.P. Carey School of Business  
Arizona State University

Thomas Germer  
Graduate School of Management  
WHU, Otto Beisheim University

Thomas Hendrick, Ph.D.  
W.P. Carey School of Business  
Arizona State University

Sandy Jap, Ph.D.  
Goizueta Business School  
Emory University

Lutz Kaufmann, Ph.D.  
Graduate School of Management  
WHU, Otto Beisheim University

Debbie Maciejewski  
CAPS Research  
W.P. Carey School of Business  
Arizona State University

Robert Monczka, Ph.D.  
CAPS Research  
W.P. Carey School of Business  
Arizona State University

Ken Petersen, Ph.D.  
W.P. Carey School of Business  
Arizona State University

# Case Studies

## Volkswagen

### Overview of the Volkswagen Group (VW)

The Volkswagen Group's activities focus on the automotive market, and VW offers products and services, such as financing and leasing, along the entire automotive value chain. Nine independent brands belong to the Group: AUDI, Bentley/Rolls Royce, Bugatti, Lamborghini, Seat, Skoda, VW, and VW Commercial Vehicles.

In 2001, Volkswagen produced more than 5 million vehicles in 45 plants worldwide. Sales in that year were 88.5 billion Euro; the number of employees 322,070. Headquartered in Germany, the Volkswagen Group is represented in all major markets of the world. Its worldwide market share is 12.5 percent; in terms of regional markets the share is 30.2 percent in Germany, 18.9 percent in Western Europe, 31.9 percent in Central/Eastern Europe, 6.6 percent in the United States, 22.7 percent in South America, and 51.3 percent in China.

Volkswagen enjoys a high reputation in its home country Germany, similar to that of Toyota in Japan. In terms of continuous growth since the 1950s, the company is a national success story. In the 1950s and 1960s, the company became world famous with the Beetle, also known as the People's Car at that time. The company has successfully build a reputation as a producer of reliable and affordable cars engineered in Germany. While its customers enjoy "Fahrvergnügen," and its workforce is proud of the products, VW is also known for its innovative approaches to managerial problems. During a severe economic downturn in 1994, for example, VW took a new stakeholder-oriented approach to protect its employees from ups and downs of economic cycles and introduced the four-day workweek for VW employees, combined with flexible hours, core time for specialist workers, and early retirement provisions. This so called "Breathing Factory" initiative involved the Board of

Management, Work's Council, and the trade union.

With a Group-wide purchasing volume of 59.9 billion Euro in 2001, which equals roughly 68 percent of total sales, VW's suppliers play a key role in driving the company's success.

### The Strategic Sourcing Context of E-RAs at Volkswagen

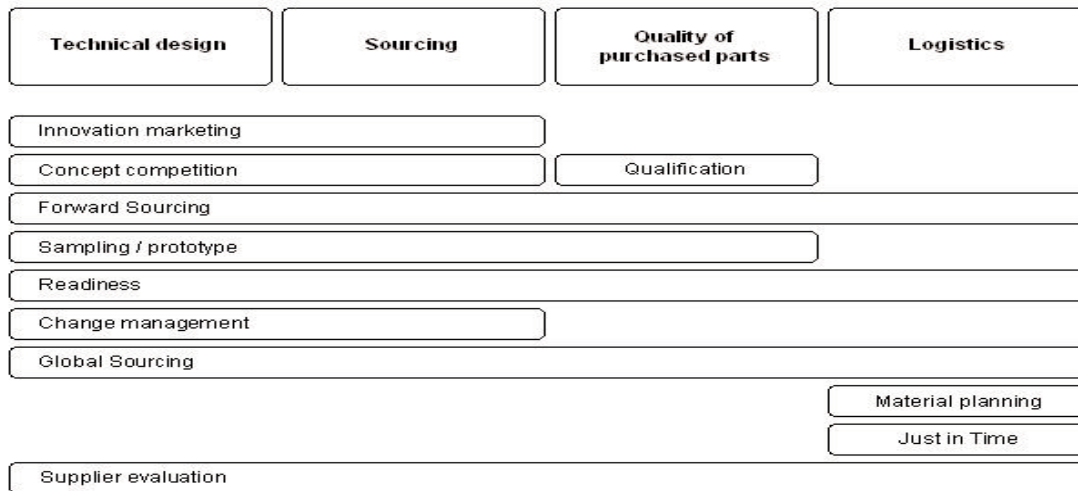
VW has build up a highly effective global purchasing network over the last decade. A matrix structure is used for group/central purchasing with the brands forming one dimension. The other dimension consists largely of the material groups (metal, power train, chemical interior, chemical exterior, electric, and machinery & equipment) and the global/forward sourcing function. Sourcing activities are supported by regional purchasing teams (also called LPT for local purchasing team) in core sourcing markets. These teams are integrated into sourcing processes across the entire Group. The advantages of having local staff right on site are numerous: not only do they have local procurement skills, but they also speak the local language and are familiar with particularities in the relevant market. Regional purchasing offices not operating under a brand are responsible for the regional supply markets in Benelux/France, Israel, and Japan/Korea.

Volkswagen Group's sourcing footprint is as follows:

- 54 percent — Germany
- 26 percent — other European countries
- 7 percent — North America
- 6 percent — Latin America
- 6.3 percent — Asia
- 0.7 percent — rest of the world

The final sourcing decisions are made by the cross functional Corporate Sourcing Committee (CSC). In this

**Figure 11**  
**VW/Supplier Areas of Collaboration**



**Table 4**  
**VW Application Transfer Volume**

<b>Online Inquiries</b>	<ul style="list-style-type: none"> <li>• 5,500 suppliers linked</li> <li>• 530,000 inquiries processed</li> </ul>
<b>Online Negotiations</b>	<ul style="list-style-type: none"> <li>• 9,000 suppliers have participated at various times</li> <li>• 1,900 online negotiations conducted</li> <li>• 22.8 billion Euro turnover in volume (during contractual period) negotiated</li> </ul>
<b>Online Catalog</b>	<ul style="list-style-type: none"> <li>• 575 suppliers linked globally</li> <li>• 775,000 articles in global catalog</li> <li>• 7,500 internal users</li> </ul>
<b>Capacity Management (eCap)</b>	<ul style="list-style-type: none"> <li>• 200 suppliers integrated; among those 60 already migrated to the new eCAP/3 release</li> <li>• 4,000 critical parts identified</li> </ul>

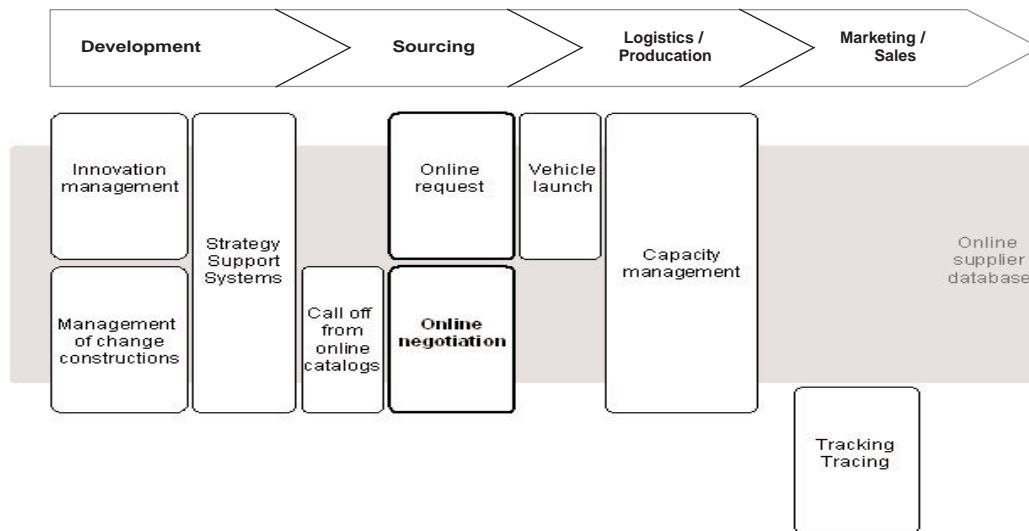
committee, the CPO, the heads of the LPTs, the heads of purchasing for each brand, R&D, cost management, quality management, logistics, and production come together. The sourcing recommendations presented by the single buyers have to get approved by this committee. This is the standard procedure for both the so-called global sourcing decisions and so-called forward sourcing decisions. Global sourcing means that the items are in production already whereas forward sourcing is for parts prior to the start of production (early sourcing).

VW pursues all modern purchasing strategies discussed in the automotive industry, such as standardization, modularization, simultaneous engineering, globalization, development of new suppliers in regions like Southeast Asia, and early sourcing including concept/design competition among suppliers. Figure 11 shows the major fields of collaboration between VW and the supplier

community.

Also, VW considers itself at the forefront of innovations in purchasing management when it comes to electronic sourcing. The Volkswagen Group already manages nearly its complete procurement volume of almost 60 billion Euro via the Internet. The Internet platform started in early summer of 2000 is up and running. Under the domain “VW Group Supply.com” the most important components, online catalogs, online inquiries, online negotiations, and capacity management have already been introduced. (Volkswagen uses the term online negotiations instead of e-RA.) VW points out that the main advantages of this private B2B supplier platform are the reduction of administrative tasks, the acceleration of processes, improved planning accuracy, and improved transparency in the collaboration with its suppliers. All applications are free of charge for the suppliers. Across all

Figure 12  
VW Online Auction Positions



applications, more than 500,000 transactions have been performed with more than 5,500 suppliers. As of September 30, 2002, the transfer volume per application is illustrated in Table 4.

Figure 12 details the VW Group Supply.com infrastructure and positions online negotiations.

### Key Characteristics of Online Negotiations at Volkswagen

As mentioned above, Volkswagen uses the term online negotiations instead of e-RA. This is done mainly for two reasons. First, the term “auction” implies that the bidding process results in a winner; in other words, the result is binding. While this is in general the case at VW, because in 80 percent of all cases the lowest bidder gets the business, this is not always the case. In the remaining 20 percent, VW chooses another bidder, either directly after the electronic bidding event or after post-event, traditional, face-to-face negotiations. In these cases the electronic event is a part (the online part) of the overall negotiation process. Second, the term is used to point out that the electronic events are a natural part of the usual purchasing process. They do not replace the global- and forward-sourcing processes established within the Group. They also do not replace the decision-making process in the central decision committee, the Corporate Sourcing Committee. Rather, the online negotiation tool is integrated in the proven processes — “to make something good even better.”

VW’s e-sourcing initiative is strongly supported by its top management. Jens Neumann, member of the Board of Management for Group Strategy, Treasury, Legal Matters and Organization, stated: “Our strategy to concentrate

on process improvement and using Internet technology as an enabler has proved to be right.” In line with this statement purchasing managers at VW point out that the primary goal of online negotiations is not to achieve cost savings for direct material, but to improve purchasing productivity. VW feels that it had a highly effective sourcing organization prior to the introduction of online negotiations and that the prices achieved were already the best in the industry. The main objectives therefore, of online negotiations, are:

1. to reduce cycle-time
2. to reduce negotiation complexity and process cost
3. to improve market transparency for both VW and the suppliers
4. to be able to act on a worldwide basis

Managers at VW emphasize that online negotiations are viewed in a larger context. They should not substitute the personal contact between the buyers and their suppliers — quite the opposite. The administrative workload of buyers, which could imply that up to 50 percent of a buyer’s time is used to key in data, should be reduced in order to be able to work more on strategic topics with suppliers. To this end, VW ensures a seamless flow of sourcing data as the results from eRFxs are automatically transferred to the online negotiation tool. The results from the negotiation tool can then be automatically uploaded by the buyers to prepare their presentations of the sourcing recommendations to the Corporate Sourcing Committee. Buyers estimate the average cycle-time reduction to the range from 10 percent for complicated

**Figure 13**  
**VW Sample Invitation**

**Forward Service Enquiry: FVW 00 7205**  
**Light Metal Wheel 7x17 (Centelon Lack): 1T0 601 025 8**

**Online Negotiation: VW E LIGHTMETALWHEEL 1 PQ35 D2101 L**

Dear Ladies and Gentleman,

The Internet provides new opportunities for business transactions, ensuring all business partners advantages in terms of increased process facilitation, speed and cost efficiency.

Online negotiation of offers by means of Internet online-bidding is one of the new opportunities. This enables you and VW to achieve significant cost and time savings compared to the previous negotiation practice.

We would like to realize the benefits of cooperating with you and thus intend to negotiate online your bid on the above stated contract volume on November, 2 at 10:00 a.m. (GMT+1).

You have been appointed as responsible contact person during the online negotiation by the buyer, [name]. Should you not be available or if there are any amendments, please let us know. Should your company want to appoint another contact person for this online negotiation, could you please furnish us with this person's contact data, i.e., name, function, telephone number, fax number, mobile phone number, and e-mail address.

May we kindly ask you to send the required phone/fax numbers to [name, title, e-mail] by Thursday, November 1, 2001, 12:00 a.m. (GMT+1).

During online price negotiations you will be able to see your bid (a price per unit for 50% and 100%, logistic cost per unit for the consuming plants, invest, and long term conditions) in comparison to your quartile position. In case a new best bid is made, you will see any changes immediately and have the chance to respond accordingly. However, data are kept confidential, so that you will not be able to identify the bidder of the most favorable bid. You may improve your bid at any time and as often as you like by a minimum of 0,10 Euro (a price), 0,01 Euro (logistic cost), 1000 Euro (invest) and 0,25 steps for ratios. At the beginning of the online negotiation, you will see your offer as received in the writing/ESL. In case you have not made any offer yet, you will have to enter your first offers directly after the online negotiation has started.

Technical Requirements:

All you need is a secure connection to the Internet and a browser, either  
MS Explorer 5.0 [Web site]  
or  
Netscape Navigator 4.7 [Web site]

In order to be able to follow up the auction process, you should be provided with the following hardware:

- Computer, Pentium (> = 200 MHz)
- Modem: 56k or ISDN
- ROM: . = 64 MB
- Operating System: Windows 95, 98, 2000 or NT
- Screen: 600x800 pixel

Please inform your contact person to be prepared for online price negotiations on November 2 at 10:00 a.m. (GMT+1). Please make sure that you are logged in on time! Negotiations will take 10 minutes, and will be extended twice automatically by 5 minutes, if lower bids are offered within the last 5 minutes towards the end. Altogether you should be prepared for at least 20 minutes. To improve and update your offer during the negotiations the contact person should have the relevant decision power from your company or you should ensure that the relevant decision makers are available during negotiations.

**Figure 13 (continued)**

We kindly ask you to confirm your latest bid in writing after online price negotiations.

VW – i.e., the relevant decision-making bodies – will then place a contract with the most favourable bidders. Having placed the best bid is the most important decision criterion.

Should you have any further questions concerning the FS enquiry, please contact the responsible buyer, [name, phone number]. For questions regarding the online negotiation, please contact [name, phone number, e-mail address].

Yours faithfully,  
[name]  
[title]  
[company]  
[address]  
[phone number]  
[e-mail address]

---

modules to 50 percent for simple parts like corrugated cardboards.

When it comes to selecting purchase items for online negotiations, VW has a clear position: all items are generally suitable for online negotiations. Under the realistic assumption that a major automotive company almost always will find enough suppliers to bid for its requirements, the only obstacle is to clearly specify the need. One VW executive said, “All suppliers have to understand what you need, and you need to be able to compare their offers. So, if you do a lot of input in the preparation phase, you can really auction or online negotiate everything.”

Given this “can-auction” mentality, it is not surprising to see that in 2002 about 20 percent of Volkswagen Group’s spend was sourced through online negotiations. Management expects this figure to go up to 40 to 50 percent over the next two to five years.

To achieve this high level of online negotiated spend management, Volkswagen has to continue to manage the change toward online negotiations. VW estimates that the majority of buyers still has to learn to use the new, improved process. However, this will take time.

Volkswagen’s philosophy: “This is a process, not a matter of one day of training.” To speed up the implementation of online negotiation, VW Group Supply has set targets for each commodity group in terms of numbers of events to be carried out and spend to award through online negotiations. In order not to give buyers the impression that they have to “take their hands off the wheel” when negotiating online, no rules have been established about when to use certain auction formats such as best-bid or rank. Currently, the ratio of these two formats is about 50:50 at VW.

Volkswagen forcefully tries to build up a strong reputation as a trustworthy online buyer in the automotive industry. This is done by carefully ensuring up front that all participants meet Volkswagen’s technical and commercial prerequisites so that everyone has equal opportunities during the negotiation. Further, e-Sourcing Management and Group Supply try to inform and train the suppliers in a highly professional way. Suppliers are informed about the date and precise regulations on time. Before an online negotiation, test runs are performed to familiarize all participants. Figure 13 shows an example of an invitation to an online negotiation to pre-selected VW-suppliers. “Bird watching” is usually not tolerated. If a supplier does not submit a new, competitive bid after a certain time during the auction, VW sends a individual message to this supplier through the auction tool’s messaging system letting the supplier know that if it does not reach the next (intermediate) target, it will be excluded from the rest of the event. Buyers are strongly recommended to conduct follow-up discussions with the suppliers after the events to provide feedback and improve their online negotiation skills for future events. Due to this high degree of professionalism, neither Volkswagen nor the suppliers of VW interviewed expressed any concerns about online negotiation-specific unethical behavior.

In the beginning of the online negotiation initiative, Volkswagen also tested the full service offers of service providers for selected purchase items. The result was that these could not offer significant advantages in terms of market making or finding better suppliers. Volkswagen developed its e-sourcing competence with the support of eBreviate. The decision to buy the software, to continuously improve and customize it, and to keep all data for VW and the suppliers inhouse was taken early for two reasons, a) data security and b) protection of

VW's competitive advantages.

As Volkswagen tries to bundle purchase power to the largest extent possible and uses online negotiations worldwide, researchers were also interested to learn whether regional differences exist in the acceptance of online negotiations either on the buyers' side or on the suppliers' side. While acceptance was slow in Brazil at the beginning and still is in Spain, two regions, Mexico and the Czech Republic, were mentioned as highly receptive to the new technology and the innovative process.

### **Key Learnings**

Key learnings from the interviews with this "super-user" were:

- The primary goal was efficiency/buyer productivity, not direct cost savings.
- Whatever can be specified clearly can be auctioned successfully.
- A large portion of direct cost can be covered through online negotiations.
- There is an ongoing need for active change management and top management support for online sourcing activities.
- For a successful roll-out of online negotiations in the supplier community, a strong reputation as a highly professional and trustworthy online buyer is key.
- Experienced users treat provider services largely as a technology commodity.
- The new technology can be successfully used in a global sourcing context.