



Digital tools, including bots, mark the advent of a new era in automotive purchasing

Purchasing departments need to be re-oriented and open to digital tools. Otherwise, the competitiveness of automakers and their supplier partners will be at risk.

Never before have purchasing agents in automotive companies been under the kind of pressure that they are today. Their daily activities show the strains of the stringent regulatory requirements and new customer preferences in markets that are hard to forecast. At a time when networked vehicles and electric mobility are readjusting global supply chains, ostensibly minor purchasing errors can lead to severe distortions in value creation and seriously endanger a company's competitiveness.

That's not all: The increasingly intensive integration of suppliers and partners in companies' physical and digital processes has made purchasing more complex than ever before. "Procurement managers must resort to cross-company and cross-functional measures more frequently and continually optimize their strategic and operating processes in the terms of the entire supply chain," says the ROI management consulting firm in Munich.

Artificial intelligence can be an important tool in realizing this adjustment. If used systematically, it not only guarantees supply security, transparency and competitive purchasing terms. It ensures process quality as well. Consultants at McKinsey have calculated that original equipment manufacturers could use AI to add \$51 billion to their value creation by 2025.

Higher productivity

"Normally automakers boost their productivity by an average of about 2 percent a year," said Andreas Tschiesner, the head of McKinsey's automotive consulting activities for Europe. "Over the next few years, an annual productivity growth of an additional 1.3 percent is achievable solely due to machine learning."

In a study, "Artificial Intelligence – Automotive's New Value-Creating Engine," McKinsey shows that this often-neglected purchasing field can be turbocharged into an engine of profitability. The precondition: In their purchasing strategies, companies need to systematically tackle digitalization and the requirements arising from disruptive trends.

Aside from standard operating tasks, more complex concerns will be handled automatically as digital



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innovation expands in purchasing. “Today specialized computer bots and artificial intelligence can process issues that go far beyond simple automation,” said Sven Marlinghaus of consultants Roland Berger. These changes can already be seen in some situations. But the majority of companies have stopped short of redesigning procurement processes, even though the time window for a successful transformation is becoming smaller and smaller. “This relates to a kind of uncertainty about how companies should handle the reorientation they need,” Marlinghaus said.

Experts have come to the conclusion that purchasing can be repositioned and that it must redefine its role as a value-creating partner within the company. Smart chat bots are playing a key role. Bots can take over standardized communication at the interface between a company and its suppliers and make processes significantly more efficient. For example, Volkswagen had already built its own speech technology team at its data lab in Munich in 2017 and gave it the job of developing chatbots.

Chat bots help VW

The goal of an early VW pilot project was to support procurement processes for commodities and merchandise under \$10,000. Year in and year out, the company spends hundreds of millions of euros in this price range. But price negotiations are almost never conducted because the time expenditure for them is out of proportion to the potential savings. It was a perfect starting point for the data lab: Researchers programmed a self-learning algorithm to give the current prices for items from a range of different sources and make purchase recommendations. Suppliers use a link to submit their best offer for the items in question.

The bot collects all the pricing feedback and provides the purchasing agent with a pre-sorted overview of the results. “Through these kinds of automated price queries, savings of \$1,000 or more can be quickly achieved. They add up to considerable sums in no time at all,” said Christoph Ringlstetter, one of the VW data scientists participating in the project.

Once the purchase decision is made, the bot automatically includes the data generated during the price negotiation in the order, and the purchasing agent can immediately continue to work with it. In addition, the data is migrated into the SAP backend system, where it is available to all purchasing employees. This is steadily reducing the number of once-routine phone calls that staff need to make.

By Ralf Bretting



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