



Using configure-price-quote software to customize specialty & marine vehicles

While the demand for made-to-order products such as specialty vehicles and yachts is generally increasing, buyers across the board are seeking greater customization. This can make it difficult for manufacturers to maintain profitability.

An MIT study documented this trend when it reviewed 27,000 records from a specialty vehicle company and noted that customer requests had resulted in 17,000 configuration options.¹ Of these, almost 7,000 options had become dormant. This resulted in low and often negative margins for the vehicles being manufactured.

The good news is that the process of configuring and manufacturing made-to-order products is being automated, streamlined, and simplified by configure-price-quote (CPQ) software. CPQ brings increasingly powerful business benefits to automotive industry manufacturers, distributors, and customers.

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Why customization should be faster and easier

There are three types of people, according to an old saying: those who make things happen, those who help them happen, and those who wake up and say “what happened?”

What’s happening in many marketplaces is that products—even complex, high-end products—are becoming commoditized. Buyers are using the Internet to research their purchases in advance, and know more about the choices they have and the costs behind them. Even today’s B2B consumers may already know exactly which intricate product best fits their needs before they make first contact with a manufacturer or distributor.

Customers are more demanding

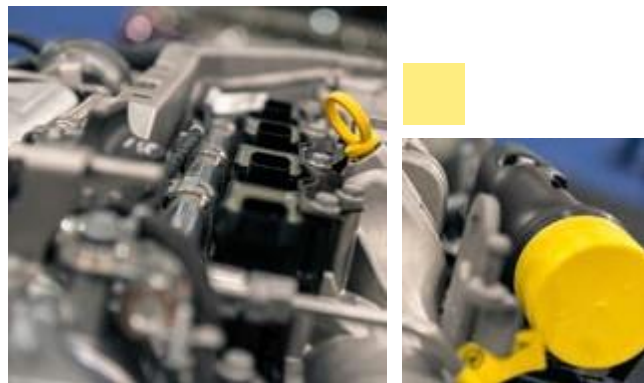
There are many ramifications to having a more informed customer base. A Bain and Company survey of 1,200 global executives revealed that 67% believed their customers are less loyal to their brand because it’s so easy to use the Internet to compare standard product features and prices.² Bain and Company concluded that enabling customization is more important than ever as a way to ensure product differentiation.

In addition, B2B buyers in their private lives are using B2C web-based software to perform complex tasks that used to require the help of a professional. They’re making their own travel arrangements, managing portfolios, and filing taxes on demand. As a result, they’re aware that intricate processes can be automated and simplified, and naturally, they seek those same qualities in their B2B transactions.

Customers want greater collaboration in design

Marine and specialty vehicle and other automotive manufacturers face unique challenges that can benefit from enhanced customization. For example, a Nordic bus company needs different types of tires and transmissions to deal with different weather challenges among its customer base. A tractor company wants a different tractor configuration for clay vs. mud. Meanwhile, 3D printing technology promises increased customization, which enables manufacturers to cost-efficiently produce small lots of customized parts.³

In addition to demanding more customization, customers increasingly want a say in the development of the product. It’s been noted that customers value a solution more if they have a greater role in designing it. A Harvard Business School study called “The IKEA Effect” concluded that the more people participate in the making of a product, the more satisfaction they get out of it.⁴



Being easy to do business with is a key differentiator

Everywhere in manufacturing, production cycles are shorter and competitive advantages are becoming more challenging to maintain. BloombergBusinessweek notes that “It wasn’t long ago that time-to-market was two years, then 18 months, and then 12 months. Now, a competitor can knock off your ‘innovation’ in six months or less. Many businesses understand that being ‘new’ or ‘different’ is no longer a differentiator.”⁵

Being easy to do business with, however, is an obvious differentiator with a number of immediate benefits to the buyer. Simplifying the customization process with CPQ software allows the buyer to meet changing needs better, at a time when other competitive advantages are more difficult to sustain. In addition, CPQ software can automatically generate all sales and manufacturing documentation needed to accelerate an order.

The overall result is that CPQ solutions are driving a number of better business outcomes. A recent Aberdeen Group report says:

Capturing and validating exactly what customers want, accurately quoting orders, and still delivering products quickly is challenging. Companies that are successfully addressing these challenges are able to reap the benefits of higher product profitability. Some are even seeing product profit margins improve by up to 80%, just by using configurator solutions.⁶

Today’s most advanced CPQ software goes far beyond the realm of contract management and the sales-oriented tasks for which it’s usually known. Product-focused CPQ solutions integrate with ERP applications and deliver the right information, documents, and data throughout the manufacturing, delivery, and installation phases to streamline the entire product lifecycle.

Challenges in enhancing customization

Most specialty vehicle and yacht manufacturers have not yet seized the opportunities that CPQ software presents. Its use is a growing niche, says the Aberdeen Group, and it’s easy to see why, considering the many unique challenges the industry faces.⁷

The heavy truck industry, for example, is subject to volatile demand swings as economic conditions change. Unit sales of big-ticket purchases such as Class 8 vehicles can decline significantly from year to year as material shortages can disrupt the flow of manufacturing. The need for fuel efficiency is necessitating a larger investment in research and development for better designs, while competition from used equipment dealers can limit manufacturers’ ability to raise prices.

A robust CPQ solution can help minimize the effects of these challenges by bringing a higher level of accuracy to key sales and manufacturing processes. Replacing error-prone and time-consuming spreadsheets—which many companies still use as the main configuration tool—with a dynamic, comprehensive online product configurator can ensure only profitable configurations are sold.

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We all know that over-quoting a bid can scare off a prospect. But under-quoting is also dangerous, since it may lead to an unsustainable—and unprofitable—relationship with an important customer.

Rules-based capabilities within CPQ software can ensure that each quote delivered is a profitable one. They also ensure more accuracy, which reduces costly engineering change orders and compliance issues later in the manufacturing cycle

But it is possible to have too much of a good thing. Some specialty vehicle manufacturers have maintained as many as 45 different methods of product configuration, covering different products, geographies, and acquisitions. In addition to the burden of maintaining multiple tools, the costs of configurator support can be significant. A complete, centralized CPQ solution can help alleviate administrative clutter—not create more.

Capabilities to look for in CPQ software

A robust CPQ solution can increase sales and cut costs for a company. It can also help a company stand out from the competition in any selling channel. To reap the full business benefits, both manufacturers and distributors of specialty vehicles and boats should be certain their chosen solution possesses all the features necessary to streamline both sales and operations.

A business should only implement a CPQ system with the capabilities to:

- **Promote step-by-step consultation and problem solving**—A sales rep who is offering dealer-added options in a clear and simple way is problem-solving and consulting with the customer, rather than selling. This is more productive for all concerned. CPQ solutions guide the customer and rep through the quoting process, and both parties can see relevant technical specifications of seating choices, engine types, and other options precisely when they are needed.
- **Provide for a greater range of choices**—A simplified back-end in CPQ software can support a wider variety of choices on the front-end for specialty vehicle manufacturers and distributors. For instance, CPQ software helps to organize and streamline core configurations for fire engines, ambulances, and law enforcement helicopters. Companies using CPQ solutions have been able to reduce hundreds of bills of materials (BOMs) to just a few, with significant time savings.

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- **Use 2D and 3D images**—CPQ software can dynamically generate 2D and 3D product representations and have them exactly match customer specifications. When buyers can compare pictures, the process of evaluating options becomes much simpler. A trailer buyer, for instance, can see all dimensions clearly labeled, so that they know requirements have been captured. A fire chief can share a 3D model with municipality clients to win support for allocation of public funds. An engineer can dynamically generate 3D CAD models to walk a buyer through the differences in a product family. A manufacturing team can drill down to check assembly and subassembly drawings to review needed processes.
- **Integrate with ERP to shorten cycles**—CPQ software should be easy to integrate with a wide range of enterprise resource planning (ERP) applications. This connection speeds fulfillment and get orders right the first time, which improves your brand's reputation and the possibility of word of mouth referrals. If you helped a yacht buyer design and buy his dream boat in minutes instead of days, who do you think he'll recommend to his friends and colleagues?
- **Generate automated documentation**—To streamline the sales and manufacturing process, CPQ software can generate compelling quotes, accurate orders, and complete bills of materials and routings, all personalized to customer and company needs. If a municipality orders a varied fleet of complex land or marine vehicles, it receives accurate, detailed documents immediately for simpler processing by an already-lean department.
- **Simplify training, administration, and security**—The CPQ user experience needs to be intuitive so that training is minimized. The software should guide reps through best-practice approaches step-by-step, training new reps, and enabling all reps to consult rather than sell. To simplify administration, automotive manufacturers and distributors should be able to make changes to the configurator without IT help. To enable security, there should be role-based access. And to enhance productivity, the solution should support mobile devices.

Benefits throughout your entire business cycle

CPQ software does more than streamline complex vehicle or boat customization. It gives top executives in the company an opportunity to transform the workflow of the entire business. When used with an ERP system, CPQ can simplify order entry and billing, while accelerating support and service. Manual administrative work is reduced by a complete, convenient user experience that provides high visibility to all product options, up-to-the-minute cost and availability data, and detailed customer info to strengthen relationships and upsell opportunities.

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- **Customers** can gain greater knowledge of options and components for current and future orders and feel an increased ownership of design due to a more collaborative quoting process that guides them through the creation of their unique vehicle or set of vehicles.
- **Salespeople** can respond to bids faster and focus on relationships and problem-solving rather than selling. Prompts can guide reps in upselling, and margin information is easily accessible and continually updated as different choices for exterior colors, upholstery, and navigations systems are made. This helps your sales force achieve profitability targets.
- **Sales executives** can capture their best sales reps' strategies and approach, to simplify training for the newest reps. For instance, CPQ software shows the best way to guide a buyer through hundreds of door, seat, and window options that can be involved in a public transit bus.
- **Engineers** can be relieved from sales support and finally focus on innovation. Because CPQ software captures engineering expertise up front, less engineering support is needed deal-by-deal. If a local nonprofit needs a wheelchair-accessible van to meet increasing demand, your rep can use an existing order or quote as a template. Since all specifications are captured and already approved by engineering, the order can move more quickly onto manufacturing.
- **Marketers** can showcase innovations faster. CPQ software highlights new features for customers, in context, as salespeople walk them through the sales and quoting process. In turn, as McKinsey notes, online configurators "provide a user-friendly and speedy way to gather a consumer's customization preferences."⁸

Marketers get real-time data on customer needs and trends, enhancing product development and planning. Through this data, companies can facilitate more upsell and cross-sell opportunities and drive promotions. More importantly, they can drive customer behavior by suggesting one more profitable product option over another. All these capabilities help create a critical competitive edge in meeting customer needs and enhancing product differentiation.

- **Dealers and distributors** can integrate CPQ software with their own customer-facing systems, and enjoy multi-tier capabilities for complex sales channels. Their customers can use the visual catalog to facilitate faster, easier searching and be exposed to promotional discounts and deals automatically. A boat distributor, for instance, can use CPQ software as an intuitive, dynamic ordering interface that presents only available options of steering panels, instrumentation systems, and other items. Dealers and distributors also find it easier to collaborate because CPQ software dynamically generates a BOM without manual order entry and duplication of information.
- **The IT team** gets more time for innovation and new projects because CPQ software enables sales, marketing, and engineering teams to make CPQ changes quickly and easily, without IT assistance.

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Helping customers say yes

Click by click, advanced CPQ software guides specialty vehicle and boat customers through an empowering array of options. Customers can watch their dynamically configured product take shape. They can address needs that they weren't able to address before. They can gain greater control and a deeper sense of partnership with the manufacturer.

CPQ software holds great promise for all made-to-order products, and it may soon—for those who seize the opportunity—be an important differentiator in categories such as high-end cars.

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