

# Using CPQ to ensure one vision of an order, from decision to delivery

Customers today expect to "have it their way," and in many cases they are willing to pay more for the privilege. Accordingly, businesses need to stay abreast of the best available approaches to delivering configured and customized products and services. This is particularly true for companies producing items such as doors, windows, and specialty vehicles, which are almost always configured, as well as those building customized kits for various industries. But personalization is becoming a key differentiator in a various other consumer-oriented businesses, as well.

Achieving success through configure-price-quote means more than modifying options and attitudes—it demands a whole new level of business discipline that includes distinct technological, operational, and organizational requirements. An organization that fully utilizes configure-price-quote (CPQ) software can not only improve profitability, quality, and operational efficiency, it can also gain a powerful competitive advantage.

#### Configuring for growth and better competition

Make-to-order and engineer-to-order manufacturers already deal extensively in configured products, based on the nature of the items they offer—including furniture, fixtures, doors, windows, and boats. Other industries are also beginning to benefit from greater involvement in product configuration and customization, including medical device manufacturing and heating, ventilation, and air conditioning. But not all companies have evolved to the point of taking full advantage of a personalized product strategy.

Many companies limit their customization offerings because they don't have a method of monitoring and managing the added complexity of selling configured products. The risk of confusion escalates every time a custom order gets passed from one department to another—from a sales rep to the design department, or from engineering to manufacturing. That problem can arise partly from simple communication failures, but also from each department's distinct information needs that other teams might not consider:

- Sales—The sales rep doesn't always know about constraints that could affect the manufacturing of a product or forming of a complex unit, and may end up promising the customer something unfeasible.
- Design—Without meeting the customer, working only from a specification, a designer might not fully grasp the client's priorities and preferences. The best designers like to get a full sense of customer desires so they can envision new ways to meet or exceed expectations.

- Engineering—Engineers understand how specific materials and configuration choices impact the overall quality and usability of the end product, but are often excluded from the design and sales processes. The more information the engineering department possesses at the start, the better the end result.
- Material ordering—To stay "lean" and meet customers' lead times, you need to keep an inventory of materials that accurately reflects sales volume—which is impossible with limited organizational visibility. A comprehensive, end-to-end ERP/CPQ process makes this level of optimization possible.
- Manufacturing and installation—The
  manufacturing and installation stages commonly
  reveal problems that disrupt any planned profit
  equation. Therefore, knowing in advance the
  required levels of staffing, skills, and equipment
  capacity can be crucial to meeting customer
  demands—and keeping delivery promises.





#### Ensuring a single vision of a complex product

When everyone who participates in building a product shares a single vision about the requested details and costs at every level, you can avoid cost overruns, schedule delays, irritated customers—or all three. More critically, you can optimize manufacturing capacity and improve overall throughput. Otherwise, even though most individual orders run profitably, the operation as a whole risks running at a loss.

Those obstacles can be overcome through modern configure-price-quote (CPQ) software, which serves as a coherent framework for consistency throughout the manufacturing process. When CPQ software is integrated with enterprise resource planning (ERP) and financial systems, companies can achieve:

Fewer errors—Modern configure-price-quote (CPQ) software serves as an end-to-end mechanism for taking orders, recording specifications, and communicating all relevant information to everyone involved. Offering a single source of information to everyone working on an order can eliminate errors that result from miscommunication or misunderstanding. In addition, CPQ systems can help sales reps build quotes that account for manufacturing constraints, thus avoiding the sale of configurations that can't be manufactured or made profitably.

- Greater flexibility—When customization and configuration become routine practice in a form, it's common to have several orders in process simultaneously. That can require a level of detailed attention across the organization that can be impossible to achieve with manual, more traditional techniques, such as spreadsheets or handwritten ledgers. By using CPQ software that organizes all the distinct operations involved in each individual job, you make it easier for managers to set appropriate priorities according to job and operation. This way, the occasional rush order can be completed without creating excess cost or causing undue delays in other orders.
- Less scrap—When sales reps create quotes and estimates, modern CPQ solutions can accurately outline all the materials and resources that any custom order will require at the time they quote the job. This helps to minimize unnecessary scrap and wasted effort.
- More profitable orders—Software-driven product configuration can incorporate labor and material cost information, which helps ensure that the price quoted for any project meets profitability targets. Companies can also improve upsell and add-on sales by using CPQ to show customers a wider range of possibilities.





• Greater opportunity to re-use designs—A major benefit of integrated CPQ software is that it reduces the need to start projects from scratch—many projects consist of modifications or enhancements of previous projects. A successful CPQ process stores past projects and makes those available as a basis for future innovation. By simply duplicating a previous order and modifying certain aspects, your team's administrative burden can be cut significantly.

# Building the demand-driven supply chain in practice

Configured product manufacturing can be, at its essence, a real-life example of what manufacturing experts often call a demand-driven supply chain. The approach has many benefits. A demand-driven approach certainly reduces the risk of dead stock and product failures, because customers have usually committed to purchasing the products before they've been made.

An even more valuable benefit to using CPQ solutions is that they provide a framework for specifying and pinpointing cost for any possible product configuration. This applies to product variants in a make-to-stock situation, just as well as it does for custom or configured products. It also ensures that the configuration specified for any product will be communicated accurately, promptly, and consistently to everyone in the organization involved with completing the product.

To be most effective, CPQ technology should also tie into other business systems, especially the operational ERP solution and any other system used for manufacturing. That way, any product quotation can reflect true costs, actual capabilities, and achievable schedules.

# Creating a reputation for innovation and quality

Consumer markets thrive on product variety, even for items that aren't individually configured by the customer. A steady stream of "new and improved" products can keep consumers interested in a highly competitive retail environment.

A fully automated CPQ process can ensure that each product variant can draw on the most successful qualities of earlier versions, while maintaining profitability and competitive pricing.

Even more importantly, new product variations built through configuration can improve quality standards. Each iteration of development helps evolve the product with the ease of a single production run. While a CPQ solution is no substitute for an effective quality management program, it can help eliminate unexpected points of failure and maintain consistency.





### Better business through product-focused CPQ

Configure-price-quote software offers opportunities for growth and profitability that manufacturers can't afford to ignore. A CPQ system allows you to:

- Streamline every aspect of your product configuration.
- Differentiate your products from the competition.
- Increase accuracy to boost customer satisfaction.
- Accelerate new product introductions and additions to existing lines.

Modern CPQ solutions help manufacturers eliminate some of the complexity of configured and customized product manufacturing—which can help them offer customers valuable new options profitably.









