

# Transforming Industrial Manufacturing: Creating Data-driven Customer Experiences with CPQ

## Abstract

The current industrial landscape is fraught with economic volatility, resulting in shrinking profit margins. In a traditional manufacturing quote-order cycle, quote inaccuracies due to complex product configurations and dynamic pricing scenarios lead to sales ineffectiveness, lost margins, and lost business opportunities. In addition, the need for developing quick quotes across multiple channels requires digital technology-enabled solutions that help reduce the bottlenecks in the overall sales process.

Configure Price Quote (CPQ) software plays a critical role in digitizing the manufacturing sales process by bridging the gap between customers and sales. CPQ can help businesses meet sales challenges, making it an essential component of Industry 4.0 - which focuses not just on automation but intelligence-driven transformation.

The paper highlights why CPQ is a game changer for manufacturing industries and how it can ingrain digital intelligence in a traditional sales process, streamlining the entire opportunity-to-quote-to-order process, providing exponential value. It also discusses the prerequisites that must be in place for organizations looking to embark on CPQ adoption journey.

## What Makes CPQ an Imperative in the Manufacturing Industry?

Today's demanding marketplace creates pressing challenges for manufacturers such as volatile customer preferences, increased channel proliferation, and increased digital interactions. The challenges are greater for industrial manufacturers dealing with highly configurable, feature rich products. The reason: traditional non-CPQ sales cycle is no longer effective in catering to the demands of modern day customers. The non-standardized manual processes result in inconsistent and erroneous configurations and manual quote generation, leading to inaccurate quotes and longer quote to order cycle. In addition, inconsistent pricing data and sales team's inability to handle complex pricing scenarios make the pricing process inaccurate and disparate. Lack of governance, sales team's inability to handle complex approvals, and non-CPQ sales processes that do not leverage the power of data across channels, further hamper the sales process. The result: eroding profit margins, error-prone orders, plummeting conversion rates, and multi-channel difficulties, in turn, negatively impacting the bottom line of manufacturers.

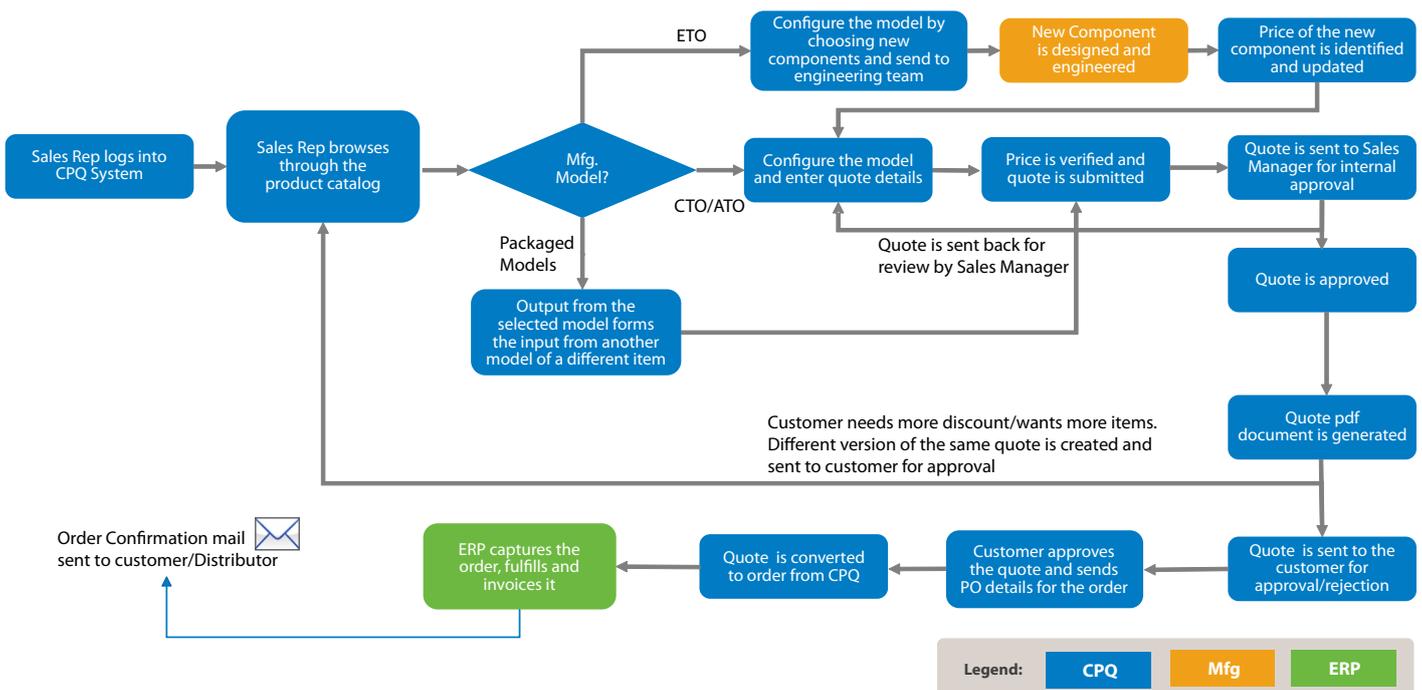
Business 4.0 based transformation driven by an intelligent, agile, and a cloud-based automated solution is imperative to creating exponential value and minimizing risk in the quote-to-order cycle. But how should manufacturers adopt a Business 4.0 vision for their quote-to-order cycle? The answer lies in adopting CPQ. CPQ is no longer just a tool that helps in configuring complex products, managing prices, and generating quotes. Rather, it helps sell the right products, to the right customer, at the right price and time - on the buyers' preferred channel. In essence, it is a sales enablement platform that delivers a unified, user-centric experience across different channels and user touch points. The key features of a CPQ solution include:

- **Configuration:** Configuration of complex as well as simple products, automated configuration rules, creation of Bill of Materials (BOM) based on configuration choices, formula management, guided selling based on customer needs, and upselling and cross-selling capabilities.
- **Pricing:** Automated pricing rules, attribute-based pricing, price books, itemized pricing and discounting mechanism based on customer, channel, volume and products/services.

- **Quoting:** Creation of quotations, simplified generation of proposal documents and contracts, dynamic document templates, and enablement of channel partners for quote generation.
- **Integration:** Mobile-ready interface, integration capabilities with ERPs, CRMs, and other applications, intuitive user interface, approval mechanism with automated workflows, reporting, and extensibility.

## How CPQ Empowers the Manufacturing Value Chain?

Several complexities across configuration, pricing, discounts, and generation of accurate quotes characterize a typical manufacturing quote-to-order cycle (see Figure 1). CPQ helps transform the sales cycle across different manufacturing models:



**Figure1: Typical Quote-to-Order Process in Manufacturing**

Given below are some manufacturing use cases where the CPQ transformation process is applied.

- **Configure to Order (CTO) and Assemble to Order (ATO):** Under the CTO model, items are assembled and configured as per customer requirements. CPQ provides the ability to define the configuration of the item at the initial ordering stage and build that configuration dynamically upon receipt of confirmed order from the customer. Post configuration, it fetches the price of the model from the list price, followed by quote creation and proposal generation.



The transformation (see Figure 2) starts with the marketing team identifying a prospect and the sales team nurturing a lead. Once the customer expresses interest in a certain product configuration, the sales person can configure the product through the CPQ system, based on the customer's specific master information from CPQ and its product derivatives from the ERP. This enables customers to review individual configuration and pricing aspects of the quote and convert it into an order through CPQ or the eCommerce system. The ERP system then fulfills the order for billing and delivery purposes. A well-designed CPQ greatly benefits the sales value chain.

### CPQ Helps Manufacturers Close Deals Efficiently

CPQ offers a gamut of benefits aligned to Industry 4.0. Figure 3 illustrates the primary benefits and the key performance indicators for an organization.

Business benefits	Impacted KPIs	
<ul style="list-style-type: none"> <li>■ Faster Sales Cycle</li> <li>■ Decrease in Sales Complexity</li> <li>■ Reduced Prospect Decision time</li> <li>■ Opportunities to upsell / Cross sell products &amp; services</li> <li>■ Quick response to customers</li> <li>■ Spending less time on proposal development</li> <li>■ Improved Channel partner visibility</li> <li>■ Reduction in Quoting Error</li> <li>■ Increased deal value</li> <li>■ Improve Brand Awareness</li> <li>■ Rapidly, effectively responding to RFP's</li> <li>■ Generating Complex quotes in a timely manner</li> <li>■ Avoiding "no decision" Sales losses</li> <li>■ Reduction in Average iterations of a sales proposal or Quote</li> <li>■ Increase in Customer retention / renewal rate</li> <li>■ Increase in Lead Conversion Rate</li> </ul>	Sales Effectiveness	Sales Effectiveness
	<ul style="list-style-type: none"> <li>■ Average Sales Cycle</li> <li>■ Win / Loss Ratio</li> <li>■ Discount Compliance</li> <li>■ Lost Revenue</li> <li>■ Cross Sell, Up Sell Revenue</li> <li>■ Average Order Size</li> </ul>	<ul style="list-style-type: none"> <li>■ Average Monthly Quotes per Sales Representative</li> <li>■ Average Customer Interaction per deal</li> <li>■ Time to Quote</li> </ul>
	Customer Satisfaction and Retention	
	<ul style="list-style-type: none"> <li>■ Quote Accuracy</li> <li>■ Clean Order Rate</li> <li>■ Cross-channel Pricing Consistency</li> <li>■ Customer Attrition Rate</li> <li>■ Revenue from New Business</li> <li>■ Revenue from Existing Customer</li> </ul>	

Business 4.0 Tenets of CPQ

INTELLIGENT	AGILE	AUTOMATE	CLOUD
Responsive web design backed up by latest UI Framework resulting in superior User Experience. System is now capable for data-flow through multiple channels & devices	Agile method is followed to implement and demonstrate the functionalities at regular intervals	Product Configuration to Quote Generation is now faster; with enhanced quality transforming the User Experience	Cloud solution leading to zero investment to infrastructure maintenance. The Support Team is a lean one now

Figure 3: Business Benefits

## How to Get CPQ implementation Right

CPQ adoption is not easy. For it to be successful, in addition to deploying a robust solution, organizations must embed a well-defined lead-to-order process across the organization. It also requires commitment from all the teams and business units of the manufacturing organization. Successful CPQ adoption requires:

- **Organizational preparedness:** CPQ transformation entails many changes in the manufacturing quote-to-order process. Without the CPQ, generating a quote requires significant manual effort. CPQ helps drastically reduce the effort with simpler and automated tasks. This inevitably changes the way an organization sells and successful CPQ implementation mandates well-defined change management processes.
- **Definition of functional footprint before vendor selection:** Prior to vendor evaluation, manufacturing organizations should identify capabilities needed for the CPQ initiative such as catalog management, guided selling, approval workflows and analytics. Additionally, they must have a clear understanding of the user base as well as the extent of utilization of external channels such as channel partners, distributors and resellers. Such an approach can help ensure the selection of the right vendor.
- **CPQ alignment with other front office applications:** CPQ alone cannot solve all sales challenges. By aligning CPQ with the front office applications such as CRM, manufacturing companies can cut substantial inefficiencies and mitigate risks such as quote containing incorrect invoice contacts, wrong pricing and inaccurate component details.
- **Data quality and integration:** A successful CPQ implementation needs enablers such as robust master data management (MDM). Lack of a customer master and a product master can lead to issues such as proposals going to the wrong customer and inaccurate product configurations. Deploying customer and product master hubs to serve as a single source of truth, and integrating them with CPQ and ERPs can help improve product accuracy.
- **Collaboration:** While organizations view CPQ as a sales application, it touches multiple verticals such as product management, engineering, finance and IT teams. Ideally, these groups must collaborate for CPQ adoption - from the

very beginning. This way, each group can identify bottlenecks and optimize their respective processes while working together to streamline CPQ adoption.

## CPQ - a Vehicle for Digital Transformation

CPQ transformation not only brings value to the sales process of an organization but also minimizes build time and complexity in the early stages of production. Sales performance of configured models helps build intelligent inventory control decisions, resulting in enhanced supply chain management. In addition, accurate product pricing and configuration results in lean and low waste processes. It is clear that introducing a CPQ system is not merely a software implementation - it drives overall business transformation that benefits every aspect of the manufacturing value chain while delivering customer-centric products. With adoption of CPQ, manufacturing industries can look forward to a streamlined quote-to-fulfilment process achieved by an adaptable, cloud-based, digital transformation.

## About The Authors

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Anindita Sarkar is a Business Consultant with over 11 years of experience in IT strategy and consulting. She has worked with global customers in defining applications strategy and domain and functional consulting in CX space such as SFA, eCommerce, and CPQ. Anindita has an Engineering degree in Computer Science and an MBA in IT/Systems.

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