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Sales Configuration—From Efficiency to Excellence

by Rob Bois

Complex products, services, and sales processes require a unique set of tools to ensure timely and accurate sales quotes that meet customer needs and represent profitable and manufacturable products. But no longer are configuration tools being deployed simply to reduce error and cost. Rather, these tools often support the rapid growth many segments of the manufacturing industry are experiencing.

Market Services Report

Acronyms and Initialisms

A&D	Aerospace and defense
B2B	Business to business
B2C	Business to consumer
CRM	Customer relationship management
DDSN	Demand-driven supply network
ERP	Enterprise resource planning
PLM	Product lifecycle management
ROI	Return on investment
SaaS	Software as a service

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The Bottom Line

Sales configuration processes and software not only improve efficiency and reduce costs, but also increasingly serve as strategic differentiators that directly impact forecasting, new product development, profit margins, and market share.

Executive Summary

For industries such as industrial manufacturing, automotive, A&D, and even services, every product selection may involve hundreds or even thousands of options that affect multiple subsequent decisions. Additionally, companies need to support internal sales representatives, partner and distribution channels, and customer direct sales. For complex configurable products, building a quote or proposal is either a fire drill involving a flurry of spreadsheets and paper catalogs or a test of wits for even the most senior sales rep or distribution partner. A sales configurator can help shrink the inquiry-to-order process by weeks and increase quote accuracy by up to 70%.

Sales configuration software has been around for over 10 years—and even longer as baked-in functionality in order management modules. ERP vendors may provide configuration functionality, but is it enough to give customers a competitive edge? Despite some changes in the sales configuration software market, there are still many options for customers to consider, including a host of specialty vendors.

In this Report, we revisit the shifting sales configuration vendor landscape and analyze an evolving set of benefits that transcend traditional measures of efficiency. In late 2004, we outlined this landscape and highlighted a dozen vendors and a number of benefits largely associated with speed and accuracy. Most customer interviews strongly emphasized cost reduction as a primary driver. Nearly three years later, the list of vendors commonly appearing on shortlists has shrunk, while the benefits seem to have grown. This is good news for software buyers and better news for software companies poised to capitalize on this trend.

Buyers justify with cost savings, but drive for revenue

Customer management application justification in general can be a tricky venture. Many companies start building an ROI model based on grand visions of revenue or profitability enhancements. Rarely, however, does even the first or second phase of a customer management project result in such benefits. Sales configuration is no different. Savvy companies justify projects by cleaning up inefficiency in the quote-to-order process, but recognize more long-term results down the road. Successful project owners usually cite three or four discrete business metrics that have achievable results and a clear tie to well-known business problems across departments.

The perfect order, for instance, can often be a great trigger for vendors to talk about and for buyers to use when selling a project internally. Even a modest improvement in the perfect order rate can increase customer or partner satisfaction, increase repeat business, decrease expedites, and shrink quote-to-cash cycles. Best of all, it is an easy measurement to track and appeals to sales, marketing, finance, customer service, and, most importantly, customers.

Consider the following three examples of benefits companies might expect to encounter, from identifying shorter term measurable cost savings to more strategic long-term value derivation.

Example 1: Drive quote and order accuracy

Nearly every company interviewed over the past two years cited quote and order accuracy as the primary driver for exploring a software solution to its sales configuration problem. Depending on the complexity of the products, inefficiencies and manual processes can result in anywhere from a 20% to 80% error rate in quotes. Poorly configured proposals usually require customer service intervention before the order can be processed. In some cases, omitted components need to be added in at supplier cost. In many complex manufacturing segments, product lead times are far longer than the typical forecast window. Reducing the quote-to-cash cycle can have an effect on improving demand management.

Example 2: Jump on the demand visibility and sales and operations planning bandwagons

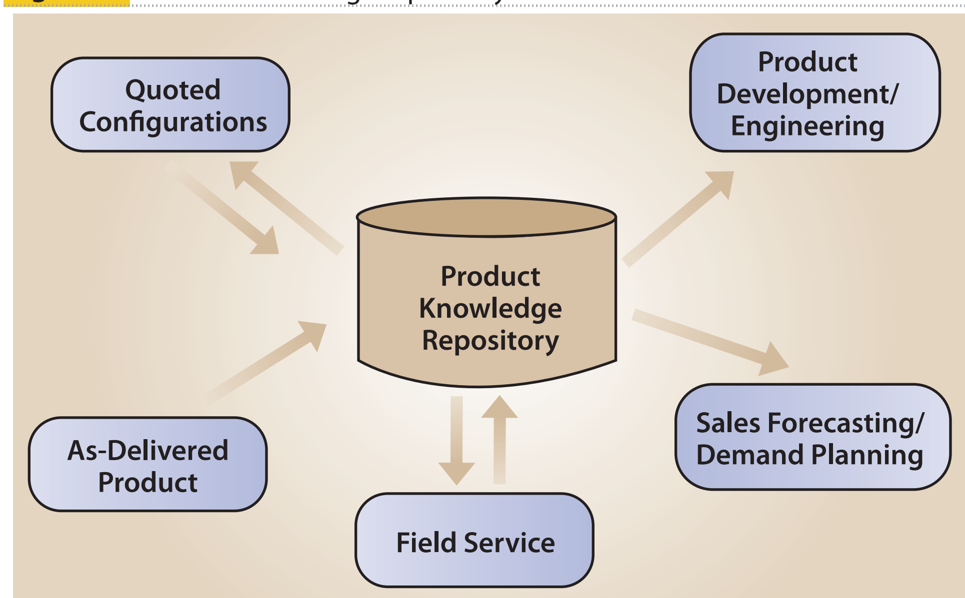
During interviews conducted in 2004, only one company discussed how it is actually using the data gathered during the configuration process to feed its demand signal. The company described how it used that information to make decisions on future products, configuration rules, and even entire product lines across time and geographies. In contrast, about half the manufacturers we worked with in the past year cited the need to improve demand visibility as a driver for sales tools like guided selling and configuration.

A configuration system, if done properly, can actually assist in determining demand variability and product profitability, a key step for companies moving toward a demand-driven supply network (DDSN). Our benchmarking studies show that the best forecasters have 15% less inventory, 17% stronger fulfillment, and 35% shorter cash-to-cash cycle times, all having a direct impact to the bottom line.

Example 3: Link sales knowledge to product improvement

As initiatives for efficiency and customer centricity collide, discrete manufacturers increasingly gravitate toward a mass customization product model in order to develop a broader set of tailored products with less custom manufacturing or assembly. Sales configuration is not only a great way to deploy a mass customization product model, but it also provides an excellent source of data for defining product models. Few companies are doing this today, but pushing historical configuration data back into the product lifecycle management (PLM) process can lead to products with broader appeal and lower production costs. We have identified a broad trend of manufacturing organizations interested in using insights gathered in the sales process for demand forecasting, product development, field service, and overall improvements in the customer experience.

Figure 1: Product knowledge repository



Source: AMR Research, 2007

Case study: From ugly duckling to belle of the ball

We recently interviewed the product strategy manager for a configure-to-order manufacturing company about the variety of business benefits, from guided selling and configuration software. This company formerly relied on mostly manual processes, or the quote-and-hope method, resulting in fragmented product knowledge, long cycle times, and high costs for proposal generation. An indirect sales channel that provided little demand or sales visibility added to the complexity.

This manufacturer had a legacy ERP system with some limited configuration and CRM capabilities insufficient for handling more complex sales process and products. It was determined that both CRM and guided selling and configuration tools would be deployed. CRM is often deployed as a first step, with guided selling and configuration following, but this company found the pain associated with quotes to be so high that configuration became a top priority. After evaluating several options, it chose the hosted version from **BigMachines** as the software.

The entire implementation took roughly nine months, a seemingly aggressive time frame. To keep on schedule, the company decided to have its internal resources focused on the project full time, not just as an extra-credit project. The team included three full-time IT and salespeople alongside two full-time professional services employees from BigMachines. The group was further augmented with resources from a consulting company called **eLogic** that had prior experience with similar projects.

Initially, success was to be measured predominantly on quote turnaround time, but some unexpected results began to emerge and additional metrics were added. The results demonstrate the power of viewing sales configuration as a product knowledge repository.

Quote turnaround

Surprisingly, quote turnaround time was not initially decreased. The company didn't take into account that the additional customer needs analysis captured would result in more product customizations being specified. However, the new system resulted in the generation of higher quality quotes that better matched the configurations to customer needs.

Forecasting

Sales forecasting evolved from a highly manual process to a true science, with automated reporting available through this software deployment. The company now forecasts within 10% to 15% accuracy 30 days out, which is near best in class for highly configurable products. Prior forecast accuracy was not provided but merely described as a finger in the air. As mentioned earlier, better forecasting leads to significant improvements in profit margins over time.

Options

The company now quotes better options and gives product development much better insight into true demand for various features and options. One product, for example, offers an option that was never sold in the past. In the new system, however, salespeople sold a dozen or more of this very same option in a month. This happened not only because options are easier to quote now, but also because the system will proactively suggest them based on customer need. While difficult to determine a dollar value, the company's competitors are admittedly losing market share. In fact several have made inquiries on how the company improved its quoting process so dramatically, a clear indicator of the importance and effect of improved configuration.

Product rationalization

In addition to applying product features more wisely, the intelligence this company gained from capturing sales quote data allowed them to significantly reduce complexity. It has now rationalized 900 different product models to 150, with no loss in ability to satisfy customer requirements. This also resulted in a reduction of 10,000 configuration rules down to fewer than 1,000.

Planning for success today and beyond

Many companies typically will short-list a sales configuration product from its incumbent ERP provider because of viability concerns with a smaller software vendor or to avoid complex and time-consuming integration work. Viability should always be carefully examined, but integration for sales configuration is not the most labor-intensive component of a configuration implementation. In most cases, simple flat-file or XML document transfers serve to move the configuration data from the quoting system to the back-end order management system for staging.

Most companies ranked integration much lower than business process and product modeling issues in terms of implementation complexity. However, buyers accustomed to integration headaches in other parts of the IT portfolio often still demand to see software vendor examples of integration to their ERP engines. Savvy software vendors have a list of references, with varying ERP integrations ready to present in the sales cycle.

Through a series of customer interviews, several common themes emerged that may not be intuitive to first-time buyers:

- The features and functions the vendors offer should not be the sole consideration in the selection process. A vendor's industry expertise and appropriate product complexity focus are far more critical. In fact, most customers interviewed suggested they could have been successful with any number of actual configuration engines, but it was the vendor's domain expertise that was most critical.

- As a result, a successful sales configuration vendor needs to have some skin in the game. Such a vendor can demonstrate good process methodology and provide references attesting that the vendor remains involved in the success. A software-as-a-service (SaaS) or subscription-based provider has additional incentive to keep customers happy: renewals.
- One size does not fit all. A vendor that excels at engineer-to-order processes is a bad choice for an assemble-to-order guided selling problem. Most sales configuration vendors don't span the gamut of product complexity. A one-size-fits-all approach does not apply to sales configuration software.

What to expect

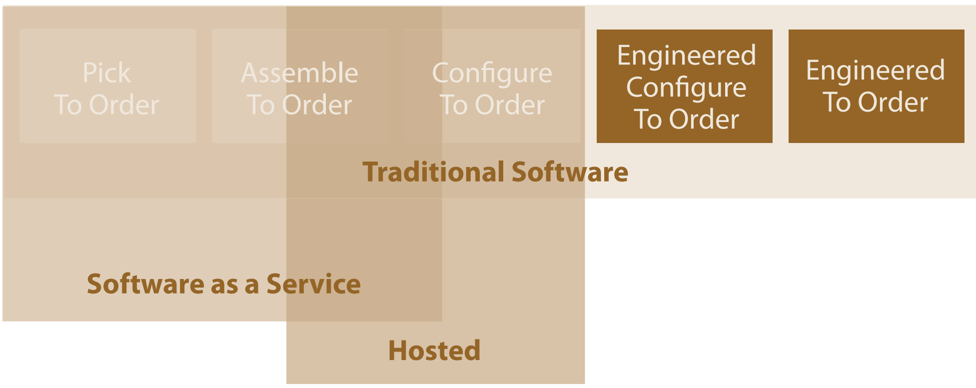
Configuration projects vary in length, from a few weeks to over a year. Companies with a good handle on current product knowledge or a homegrown or legacy configuration application in house usually have an advantage. There is usually at least some structured format for the product data in electronic format. Companies converting from a system of manual processes, spreadsheets, and intellectual property have a significantly longer road ahead.

For many companies, the product information gathering process took at least half the overall implementation time frame, and many wished they'd spent even more time on that phase. Product complexity, such as the number of rules, permutations, constraints, or variants, has a significant impact here. Simple products with simple rules require less upfront work. A good sales configuration vendor will bring a process methodology to the table that can help accelerate this process and avoid pitfalls.

Integration can also add complexity to a project, but it's usually limited to an ERP or CRM system (or both). Companies may be tying a front-end sales configuration engine to an existing back-end product configuration, usually as part of the ERP system. In this case, a company needs to determine how rules will be synchronized between the two systems to ensure any changes to product rules are captured in both places.

Costs for sales configuration projects start in the $250K range for software licenses and can near the $1M mark for highly complex projects. Services typically range from one to two times the license cost. A subscription model can reduce upfront license cost, helping customers avoid the frequently lengthy and painful capital appropriation process. But a careful analysis of longer term total cost of ownership would be required to accurately compare deployment options and costs. A vendor with no hosting, subscription, or SaaS strategy will be at a disadvantage unless it solely addressed highly complex configurations. Most buyers for configured engineer-to-order complexity, for example, are unlikely to consider a hosted option.

Figure 2: Preferred delivery model by complexity



Source: AMR Research, 2007

Recasting the characters

While few mergers and acquisitions have taken place in the sales configuration software market in the past three years, the landscape has continued to shift. The sales configuration problem can be very complex and requires at least as much effort for process and product orchestration as it does software implementation. Particularly in engineer-configure-to-order and engineer-to-order configurations, vertically oriented specialty vendors often have a better understanding of a company's products and configuration needs than broader enterprise software providers. However, many of these niche vendors have remained just that. In fact, it has proven fairly difficult for sales configuration vendors to effectively expand beyond the industries they specialize in largely because these software products are designed with a particular type of industry or product complexity in mind.

However, a few vendors have managed to broaden their reaches, while several have gotten out of the game entirely. One is even reentering the market it largely defined in the 1990s. What follows are highlights of the major changes to the vendor landscape in the past 18 to 24 months.

Oracle forges ahead toward Fusion

The one vendor that has gone through the most change in the past three years is **Oracle**. Through the acquisitions of **PeopleSoft** (which had acquired **JD Edwards**) and later **Siebel**, the company now boasts four separate configuration tools. With the company's massive Fusion Applications project well underway, many customers of each or multiple products are concerned about current and future sales configuration investments. However, there are several key points that may help clarify some confusion:

- Oracle E-Business Suite's configurator, Oracle Configurator, remains the company's flagship product and will represent the core configuration engine in the eventual Fusion Applications product.
- Oracle's Applications Unlimited plan means existing JD Edwards, PeopleSoft, and Siebel customers should feel comfortable that their existing products will be supported for the foreseeable future, but don't expect to see significant configuration enhancements outside of E-Business Suite.
- Oracle is developing and selling new packaged integrations called Process Integration Packs to allow Siebel and then PeopleSoft customers to seamlessly integrate Oracle Configurator into the Siebel and PeopleSoft quote and order management process. This will allow them to take advantage of the E-Business Suite configuration capabilities without ripping out existing order management applications or waiting for Fusion to be completed.

The company has also gone through several waves of significant enhancements to the Oracle Configurator. First, with the release of E-Business Suite 11i.10, Oracle completely revamped the thin client administrative environment for rules modeling and user-interface building. Oracle Configurator is also unique to the market in that a single engine is used for modeling both sales and back-end product configuration, eliminating the need to synchronize sales and product configurators.

Earlier this year, with the release of Oracle E-Business Suite 12, additional enhancements were made, particularly to the configuration modeling environment. Oracle estimates as many as half of its 300 live Configurator customers have upgraded to the 11i.10 release or higher, indicating that customers saw significant improvement after that major release.

Oracle is also unique in its largely horizontal approach to sales configuration. Unlike its Siebel counterpart, Oracle Configurator doesn't have industry flavors. While industrial manufacturing and high-tech represent the largest segments, professional services, communications, and retail are also adopting the product. Recent customer wins include **Cisco**, **Brooks Automation**, and **United Feature Syndicate**. Live customers include **Alcoa**, **EMC**, **Ingersoll Rand**, and **Qualcomm**.

Oracle's vision for configuration in the eventual Fusion Applications offering is a tool that takes Oracle Configurator as the core engine and incorporates select features and functions from the company's other configuration products. The result is a tool that is easy enough for less complex products and sales processes, but powerful enough for more complex configuration. This is a lofty goal, but of all the vendors in the market, Oracle has the resources to achieve this nirvana that would allow companies with multiple product lines of varying complexity and application to be configured in a single environment. Today, however, multiple configuration tools are the only viable solution to this problem.

BigMachines gets bigger

Of the specialty vendors highlighted in our last vendor landscape, BigMachines has begun appearing more frequently on shortlists, largely driven by its presence on **salesforce.com's** AppExchange. Because of salesforce.com's increasing pervasiveness within high-tech markets, BigMachines has been able to broaden out of its traditional sweet spot of pumps, valves, and industrial products to now include high-tech manufacturing such as office productivity, medical devices, and telecommunications equipment.

As a result, the company has also experienced growth in its subscription-based software model that aligns well with the salesforce.com customer base already inclined to SaaS. Recent new customers include Siemens, **Kodak**, **Teradyne**, and Ingersoll Rand. The company's growth and increased visibility on the AppExchange have resulted in BigMachines being frequently included on shortlists, particularly for companies already using salesforce.com for sales force automation.

FirePond stays in the pond

In the last AMR Research vendor landscape on sales configuration, **FirePond** was enduring some serious viability issues, as well as frequent changes in management. Since that time, the company has stabilized and refocused.

Like BigMachines, it also latched on to the salesforce.com ecosystem, now exclusively as a SaaS offering. While the company has seen some new traction, it hasn't enjoyed a significant boost in awareness as a result of the salesforce.com ecosystem.

The suites

Click Commerce and **Comergent** both compete in the broader, multichannel commerce suite business, with both recently rolled up into bigger companies. Click Commerce was taken private by **Illinois Tool Works**, but remains as an independent operating company. While sales configuration remains a component of the suite, it appeals particularly to companies looking for the broader B2B e-commerce capabilities the suite offers, such as catalog management, guided selling, pricing, and trade funds management. However, buyers can still buy the sales configuration module as a standalone product. Companies with a longer term B2B e-commerce vision but a short-term configuration challenge are an ideal fit.

Comergent was acquired by **Sterling Commerce**. Its products are now being combined with other software assets within the company to address broader customer order management. Sterling recently announced its broader offering called Sterling Selling and Fulfillment Suite, which covers order management through fulfillment. Largely composed of the combination of the Comergent assets and the prior **Yantra** acquisition for order management, the integrated suite offers multichannel distributed order capture and fulfillment.

The specialists

The market is still rich with sales configuration specialty vendors that excel in niche industries. While deep domain expertise gives these vendors capabilities in the industries they were designed to serve, this also makes it difficult for these vendors to broaden to new areas.

However, as this market continues to grow and demonstrate new business benefits, well-funded companies such as **Cincom** are likely to find new markets for expansion. In fact, Cincom recently introduced a specific strategy for the **SAP** ecosystem for customers with product complexity beyond what SAP's Internet Pricing and Configuration (IPC) product can handle. Other vendors specializing in configuration for specific industries or product types include **Access Commerce**, **Configuration Solutions**, **Configure One**, **RuleStream**, **TDCI**, **Technicon**, **Treehouse Interactive**, and **Webcom**.

The resurrected

One notable absence in the sales configuration world is **Trilogy**, one of the earliest companies to participate in forming the market category in the early 1990s. Through the economic downturn of the early 2000s, Trilogy retreated from the pure software market and reinvented itself as a platform for more custom development work. However, the company recently spun off a separate software division now branded as **Versata**.

The company claims it is already reengaging with some legacy Trilogy customers for add-on or even replacement sales configuration projects. However, we have not seen specific examples of the company competing head to head for net-new customers yet. While it could take some time to get the new brand awareness into the market, the Trilogy heritage gives the company instant credibility. It should be a company to watch over the next year.

The departed

A few notable vendors profiled in our last vendor landscape have changed directions and no longer lead with a sales configuration strategy. **Selectica**, which was one of the early shapers of the configuration, pricing, and quoting market, acquired a small contract management company called **Determine** in 2005. It has now taken those assets on as the lead product for the company. While Selectica Configurator and Pricer are still being sold, the lead product and future direction of the company revolves around unified buy-side and sell-side contract management, a topic we will also be covering in the coming months.

Blue Martini, which traditionally sold guided selling and configuration to both retailers and manufacturers, has been rolled up into a company now called **Escalate Retail**. As the name would imply, Blue Martini is now focused exclusively on B2C and retail. It no longer actively markets to B2B manufacturing.

Recommendations and key takeaways

While the broader customer management and CRM markets have gone through some major consolidation over the past five years, the sales configuration market has remained largely unchallenged by the bigger fish in the sea. Because of the specialized nature of these products, they don't generate the vast customer bases, brand-name customers, and broad industry appeal that big suite vendors like Oracle and SAP target. Therefore, even the smaller niche players in this market are unlikely acquisition targets. While this is good news for customers wary of consolidation, it also limits the exit strategies for these companies.

However, as sales configuration software sees new acceleration for adoption, new and compelling business benefits continue to emerge. Improvements in forecasting, product innovation, and even revenue get the attention at the executive level, which will continue building awareness of configuration within more complex manufacturing industries. As growth in SaaS continues to dramatically outpace growth in the license software market, the appetite for hosted and multitenancy applications in this ecosystem can only increase as well.

Many manufacturers' IT departments still demonstrate a poor understanding of front-office applications and the benefits of technology to these organizations. Vendors should capitalize on this opportunity and provide ample education on metrics and the tactical, strategic benefits of guided selling and configuration software and front-office improvements. The business benefits are manifold and appeal to many departments in the organization. This means that vendors need to help companies identify and develop strong internal sponsorship, perhaps central IT, and ensure their messages are heard loud and clear by business leaders beyond IT.

Notes

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AMR Research, Inc.
125 Summer Street
Boston, MA 02110
Tel: +1 (617) 542-6600
Fax: +1 (617) 542-5670

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