B2B Order Management Bridges The Gap Between B2B eCommerce And ERP
by Duncan Jones, March 27, 2015

KEY TAKEAWAYS

B2B Order Management Products Integrate Front And Back-Office Software
B2B OM products can bridge the gap between a complex portfolio of customer-facing applications. These applications can vary by market segment and by channel, with an equally fragmented array of order execution processes.

B2B OM Portfolios Cover Order Capture, Visibility, Allocation And Execution
Some products focus on one or two of these areas, with very few supporting all four equally well. B2B OM products provide services to customer-facing apps to ensure consistency and full visibility independent of channel. They also optimize and orchestrate the various fulfilment systems to execute the order in accordance with the customer's needs.

B2B OM Strategies Should Favor Customer Centricity Over Architectural Elegance
Standardization can bring economies of scale but can also reduce flexibility and agility. AD&D leaders should balance consistency with autonomy and tactical urgency with strategic simplification, based on what is most important to customers. This may mean allowing local decision-making while using light governance to drive gradual simplification.
B2B Order Management Bridges The Gap Between B2B eCommerce And ERP
Create A B2B Order Management Strategy That Prioritizes Speed And Agility Over Economics Of Standardization
by Duncan Jones
with Chris Andrews, Andy Hoar, Peter Sheldon, and Carmen Stoica

WHY READ THIS REPORT

Many eCommerce projects fail due to problems integrating front-office applications with back-office order tracking and execution. This “integration gap” is a particular challenge in B2B scenarios because they involve complex, heterogeneous application landscapes in both front- and back-office domains. This report explains how B2B order management (B2B OM) platforms can bridge that gap, even in global federated organizations for which a single omnichannel platform is impractical. We describe the different types of B2B order management that are available and explain how central application development and delivery (AD&D) leaders can incorporate them within their enterprise commerce application strategy.

Table Of Contents

2 B2B Firms Struggle To Integrate eCommerce With Back-Office Software
5 B2B Order Management Products Bridge This Integration Gap
8 Prioritize Customer Centricity Over Architectural Elegance

RECOMMENDATIONS

11 Assess And Refine Your B2B OM Strategy — Urgently
12 Supplemental Material

Notes & Resources

Forrester interviewed nine technology vendors and end-user organizations, including Apttus, IBM, Insite Software, Manhattan Associates, Oracle, PROS, Revitas, SAP, and Stratinis.

Related Research Documents

Deliver Four Capabilities To Resolve The Buyer/Seller Conflict Within B2B eCommerce December 31, 2014

Deliver An Effective Technology Infrastructure For Global B2B eCommerce December 19, 2014
B2B FIRMS STRUGGLE TO INTEGRATE ECOMMERCE WITH BACK-OFFICE SOFTWARE

A major obstacle to eCommerce in B2B integration is the complexity of integrating multiple customer-facing applications with diverse fulfilment systems. Many AD&D leaders in B2B organizations face a diverse software portfolio, including customer-facing applications that vary by business unit and channel, and back-office platforms that differ by fulfilment method and product type (see Figure 1). Unless the central AD&D leader can find a simple way to integrate the various applications, she is likely to face:

- **Under-performing or failing eCommerce initiatives.** Customers and sales staff will refuse to use software that they cannot trust to reliably perform key tasks, such as displaying and reserving available inventory. For instance, problems with front-to-back office integration, not the software itself, caused one high profile project failure because sales agents became too frustrated with the new system's inability to save orders and deliver as promised.\(^1\) Another common cause of failure is trying to make a B2C-focused product fit B2B scenarios.

- **Conflicts between vertical and horizontal standardization.** AD&D leaders want to simplify and standardize their complex landscapes — 73% of the C-level executives we surveyed at enterprises for Forrester's Business Technographics Global Software Survey, 2014 told us that enterprise application rationalization and consolidation is a high or critical priority.\(^2\) B2B eCommerce is often a prime candidate because many organizations leave key software decisions to business units (BU) and, therefore, find themselves with a myriad of customer-facing apps across the enterprise. In such a situation, your application strategy can standardize horizontally (e.g., the same configure, price, quote [CPQ] platform enterprisewide to give a consistent experience for global customers) or vertically (each BU extends its omnichannel platform to reduce the need for custom integration), but not both.

- **A morass of customization that will undermine the organization's agility.** The need for agility is a major reason why replacing legacy apps with new software-as-a-service (SaaS) applications is a high priority for C-level executives at enterprises (see Figure 2). Process architecture, software innovation, and supply chain flexibility are three dimensions of process agility.\(^3\) You cannot deliver these if every enhancement risks breaking a fragile custom integration.

- **Excessive demand for short-term point solutions.** You may have a grand vision of a comprehensive enterprisewide eCommerce and order management suite, but customers won't wait while you implement it. Meanwhile, local priorities may drive short-sighted local product decisions.\(^5\) Without a clear simplification strategy, there is a risk that you will get bogged down fighting small fires without moving toward your strategic vision — e.g., harmonizing prices between one eCommerce platform and one guided selling app without solving the wider challenge of enterprisewide consistency.
**Figure 1** Integrating Front-And Back-Office Software Is An Obstacle To B2B eCommerce Success

Channels  
e.g., eCommerce, call center, field sales force

Customer segments  
e.g., region, industry

Production facilities  
e.g., region, product

Fulfillment applications  
e.g., ERP, 3PL, WM, SCP

Key  
ERP = enterprise resource planning, 3PL = third-party logistics,  
WM = warehouse management, SCP = supply chain planning

Source: Forrester Research, Inc. Unauthorized reproduction or distribution prohibited.
Direct Integration Between eCommerce And ERP May Be Impractical, Or Insufficient

Even if you have a long-term goal to replace all the underlying systems with one enterprisewide commerce platform and one enterprise resource planning (ERP) instance, you will need to manage complexity and variation in the medium term. A homogenous businesses with a single ERP instance may be able to integrate that directly with the front-office systems, but that will be difficult if you:

- **Have multiple ERP instances, customizations, master data structures, and processes.** The integration challenge is rarely the technical problem of getting data out of one system and into another. Some problems occur when you have to translate item codes, customer numbers, credit terms, units of measure, etc., between separately maintained databases. Other problems arise...
from process mismatches, such as a change request from eCommerce that the ERP does not know how to handle. This will be the case whether you face many different configurations of one ERP product or a collection of best-of-breed solutions.

- **Need to integrate directly with supporting systems and third parties.** You may want to link with supply chain execution, warehouse management, third-party logistics providers (3PL), and suppliers’ ERP to reduce errors, avoid delays, and deliver process agility. For example, if a customer adds specific delivery instructions at the last minute you will want to tell the 3PL immediately — not wait for your ERP to do it via a batch update.

**B2B ORDER MANAGEMENT PRODUCTS BRIDGE THIS INTEGRATION GAP**

The good news for AD&D leaders, however, is that there are now several products that can help you address these challenges, in a growing market that Forrester calls B2B order management. B2B OM products link front-office selling processes with back-office execution tools via one or more of four categories of service (see Figure 3). They complement your existing ERP platforms by directing orders between ERP instances, adding capabilities that many ERPs lack, and providing a consistent view of orders across all front-office systems. Your B2B OM application strategy will depend upon the extent to which your ERP foundations deliver:

- **Consistent order capture across channels and business units.** Customers will expect key data such as price and available-to-promise (ATP) to be the same, independent of sales channel. They may also expect consistency across business units — for instance, if they are global companies buying from multiple divisions in different countries. Of course, your sales colleagues may decide to price differently by channel and/or business unit — that's okay. What's not okay is variable price and ATP merely because you're unable to synchronize them across customer-facing systems, or because the answers depend on which ERP instance you ask.

  For example, a global transport refrigeration provider implemented PROS’ Cameleon CPQ product to harmonize the pricing of spare parts across its distributor partners. It is part of a B2B OM solution that links direct, eCommerce, and channel sales with 17 different ERP instances. Customers can now use the most convenient service center, depending on where a truck is when a fault occurs, without having to worry about price variation. This consistency is a differentiator that helped the company increase its revenue.

- **Reliable insight into order status, irrespective of which channel captured the order.** Products in this subcategory are the system of record for open orders, including subsequent amendments that the customer requested. Self-service eCommerce may be the system of engagement that the customer uses to check on status, but the data should come from a B2B OM service. The reason is that customers will demand visibility into all his companies’ orders — not merely the ones
that employees created via the eCommerce site, but also those entered by EDI, a salesperson, or a call center CSR. The customer will also want real-time delivery status irrespective of which ERP instance is driving execution.

**Optimal order allocation between fulfilment systems.** Many B2B OM products are able to choose which of several available fulfilment systems to instruct to start manufacture, assembly, and/or shipping of each order line. These systems may include multiple ERP instances, discrete warehouse management products, and/or supply chain planning and execution platforms. Choosing the best way to meet each customer’s needs can bring multiple unexpected benefits, as one B2B OM vendor told us:

“The business value comes from speed and agility, particularly related to inventory, which ERPs seem to hold hostage. This agility translates into higher customer satisfaction, in addition to lower inventory, fewer write-offs, and less money wasted trans-shipping between warehouses.” (Brian Kinsella, vice president of order management, Manhattan Associates)

**Harmonious orchestration of order execution.** Some companies use B2B OM as the conductor, ensuring that the various production and shipping instruments stay in tune and on tempo. This is a combination of process management and software integration that ensures the customer hears only the symphony, not the blowing and scraping that create it. Riad Hijal, global head of solution management, omnichannel B2B commerce at hybris (an SAP company) sums it up brilliantly. He told us:

“Together, your eCommerce and B2B OM solutions should hide the complexity of your organization from your customers.”

For example, a major telecoms company has a B2B OM system that manages the process of connecting a business customer to the network. It has over 80 different back-end systems that handle specific tasks that it must perform in the right sequence, such as securing permission from the local authority to dig up a road before instructing a sub-contractor where to dig.
Your B2B OM Application Strategy Should Accept Gradual Standardization

Standardization can bring economies of scale, not only in the cost of the software itself but also in implementation, support, and operation of it. However, it can also reduce flexibility and agility, if business requirements change, or vary by business unit. Moreover, standardization takes time — e.g., selecting a single solution that will reconcile diverse business needs and then rolling it out across disparate business units — and your customers won’t wait while you do this.

Rationalization is particularly problematic with B2B OM because it is a software category in the Growth phase of its evolution. Forrester’s TechRadar™ methodology tracks technology markets through five phases: Creation, Survival, Growth, Equilibrium, and Decline. B2B OM is currently in
the middle of those phases, which is usually a period of consolidation in which technology product choices are problematic. You are unlikely to find a single product meeting all your needs until the market matures. You should therefore, for now, construct an application strategy that combines:

- **Software giants, which offer extensive portfolios that they have built by acquisition.** Companies that need help across many B2B OM processes may focus on providers with broad suites. IBM sells Sterling Order Management Suite and WebSphere Commerce Suite in both B2B and B2C markets. Oracle has acquired several eCommerce and OM companies including BigMachines and Micros to add to internally developed products such as Fusion Distributed Order Orchestration. SAP acquired hybris in 2013 and is extending it from its B2C roots to accommodate B2B customers too.7

- **Independent B2B OM providers with broad suites and deep knowledge of B2B.** The market includes many fast-growing providers such as Apttus, InsiteCommerce, Manhattan Associates, and PROS. These companies tend to be particularly strong with B2B-specific issues that stump B2C eCommerce platforms, such as complex customer organization structures (e.g., order from one site, drop ship to a third-party location, and invoice a shared services transaction processing center).

- **Niche specialists that can complement the suites or layer across multiplatform architectures.** Examples of this type include Revitas and Model N in contractual revenue management and Stratinis, Vendavo, and Versata in price optimization. Companies like this often have deeper functionality than the suites, with a narrower focus. You can use niche products to fix an urgent problem without disrupting the ERP foundations.

**PRIORITIZE CUSTOMER CENTRICITY OVER ARCHITECTURAL ELEGANCE**

In the above environment, your B2B OM application strategy should drive gradual simplification while coping in the medium-term with the heterogeneous environment and the varied business needs that created it. So where do you start? How do you secure some quick wins without detouring from your road map to a comprehensive B2B commerce solution? The answer is “with the customer.” To build your strategy, you should first analyze how important it is to customers that that specific area of B2B OM is:

- **Consistent, delivering the same experience across business units and channels.** Most of the B2B OM vendors told us that this “one-face-to-the-customer” imperative is driving many of their clients’ projects. Architectural consistency is nice, but customers’ expectations are imperative. Analyze all your routes to market to identify where you may have multiple touchpoints with one customer organization. Look for B2B OM platforms that can harmonize as many of those touches as possible.
For example, one global enterprise got into trouble when a customer implemented some analytics software in procurement and discovered that different divisions were paying widely different prices for the same items. The customer’s view was that its supplier had overcharged it by about $30 million, forcing them to demand an immediate refund. The supplier decided to implement enterprisewide price optimization software from Stratinis that would help prevent such price variances arising in future.

- **Flexible, to accommodate specific market requirements and react to new customer needs.** The need to support regional or industry-specific rules and customs may outweigh the economies of scale from standardization. You may also need to support multiple B2B OM platforms if the customers’ buying journeys vary so much between BU that no single platform can be a good enough fit everywhere.

For instance, many companies that sell expensive machinery such as trucks or construction plant need to combine direct, partner, and online channels for both initial sales and aftermarket repair. The equipment sales BU would need a CPQ product such as Apttus, Oracle CPQ Cloud, or PROS to help customers choose the right options. The same enterprise’s aftermarket repair BU could use the same B2B OM suite as its sibling, but might instead prefer a product such as Manhattan Associates that optimizes repair service-level and consumption of available inventory.

**Empower BUs To Prioritize But Encourage Gradual Standardization**

Having formulated your application strategy, you next have to decide how quickly and widely to rationalize. Don’t rush, because this may trigger resistance from autonomous divisions that are used to federated decision-making. Enterprise architects’ techniques, such as capability mapping and zone analysis, may identify where standardization will be most beneficial. A central application strategy does not necessarily mean one enterprisewide platform — your target architecture can offer BUs a choice of product in some zones.

Once you have consensus on the target architecture you can define a road map that will take you over or around resistant colleagues. One way to set the timetable is by mapping the tradeoffs between consistency and business fit — and between tactical urgency versus strategic simplification (see Figure 4). This will enable you to:

- **Issue guidelines for B2B OM subcategories where standardization is impractical.** Even if you have a long-term goal to simplify your application portfolio, it may be better in the short term to grant BUs autonomy to make their own product choices, particularly where urgent action is imperative.
- **Use one BU’s success to encourage others to mimic them.** Natural flocking may be the best way to simplify the B2B OM landscape. Several of the vendors we spoke with told us that they had become de facto standards by BU AD&D leaders mimicking their peers’ successes and choosing the same product that they had seen working elsewhere in the organization. For instance, Insite Software told us:

  “Many of our customers started out by choosing us in one part of the business because they didn't have the time or the budget for an organizationwide selection and rollout program.”

- **Discourage custom integration posing as B2B OM.** Many firms have used middleware tools such as enterprise service buses (ESB) to link the front and back offices. This may have been the best option at the time, but the products that are now available offer a more flexible, comprehensive, and durable solution. For instance, an ESB may successfully push an order into an ERP system but it may not optimize the choice between instances. Similarly, an ESB may create unacceptable delays when it tries to find the appropriate ERP instance to which to route a customer’s order status query.

---

**Figure 4 Set Your Governance Strategy For Each Software Category**

![Governance Strategy Diagram]

---

Source: Forrester Research, Inc. Unauthorized reproduction or distribution prohibited.
RECOMMENDATIONS

ASSESS AND REFINE YOUR B2B OM STRATEGY — URGENTLY

Smart AD&D leaders will not prevent their organization’s BU enhancing their B2BOM software while they create the perfect enterprisewide application strategy. You should instead prioritize assessing the current landscape to identify the extent of change needed and its urgency. Start the simplification process by:

- **Mapping your current B2B OM landscape.** Find out how many different products your various divisions currently use to identify unjustified fragmentation. Use a framework, such as the consistency/urgency matrix in the above figure, to pick the appropriate governance model for each subcategory.

- **Standardizing where possible while allowing diversity where necessary.** Focus your energy where the economies of scale are greatest and the BU resistance will be least. In many areas, validating two or three products and publicly approving them may be quicker, easier, and more effective than striving for enterprisewide consensus. Don’t waste time replacing existing software if the BU and its customers are happy with it. For example, Oracle told us:

  “We encourage customers to continue using niche solutions that are working well, and even expand them, to replace poor products or to fill gaps.”

- **Finding software providers and implementation partners that understand your business.** You need a partner that can configure its solution to accommodate the breadth and complexity of sales channels and fulfillment methods that are common in B2B businesses. Be particularly wary of B2C vendors claiming that they also support B2B scenarios. Forrester has found that most B2C eCommerce vendors don’t know what they don’t know when it comes to B2B. For instance, B2C products cannot support the many:many scenario of a complex global customer buying from multiple divisions of a global supplier. Insite Software’s cofounder told us:

  “Many of our deals involve companies that have tried to roll-out a B2C product and failed, so they want a vendor that really understands B2B.”
SUPPLEMENTAL MATERIAL

Survey Methodology
Forrester's Business Technographics Global Software Survey, 2014, a mixed methodology phone and online survey, was fielded in July through September 2014 to 3,308 business and technology decision-makers at companies with two or more employees.

Each calendar year, Forrester's Business Technographics fields business-to-business technology studies in 10 countries spanning North America, Latin America, Europe, and Asia Pacific. For quality control, we carefully screen respondents according to job title and function. Forrester's Business Technographics ensures that the final survey population contains only those with significant involvement in the planning, funding, and purchasing of business and technology products and services. Additionally, we set quotas for company size (number of employees) and industry as a means of controlling the data distribution and establishing alignment with IT spend calculated by Forrester analysts. Business Technographics uses only superior data sources and advanced data-cleaning techniques to ensure the highest data quality.

Companies Interviewed For This Report
Apttus
IBM
Insite Software
Manhattan Associates
Oracle
PROS
Revitas
SAP
Stratinis

ENDNOTES
1 For example, Avon Cosmetics had to write off the $100 million cost of an unsuccessful sales enablement project based on software from IBM and SAP. Avon cancelled the roll-out after the initial launch went so badly that thousands of sales agents stopped selling Avon products. The project was complicated by a variety of vendors involved in the implementation, and the integration of front-office and back-office work operations. Source: Doug Henschen, “Inside Avon's Failed Order-Management Project,” InformationWeek, December 16, 2013 (http://www.informationweek.com/software/information-management/inside-avons-failed-order-management-project/d/d-id/1113100).
3 We live in an age of process innovation, where smartphones become credit cards overnight and where customers use new information sources and tools to conduct business. Enterprises are not ready for this new world. Process skills still center on highly predictable, on-premises, structured systems . . . Leading
enterprises combine awareness and execution across five areas to become flexible and adaptable: business intelligence, infrastructure elasticity, process architecture, software innovation, and sourcing and supply chain flexibility. See the September 9, 2013, “The 10 Dimensions Of Business Agility” report.

4 The systems-of-record (SoR) built over the last few decades are stitched together from various combinations of infrastructure, platforms, programming languages, and databases using various integration techniques. The primary focus for SoRs has been efficient transaction processing. The variety of technology and monolithic nature of the apps have a price — the excess rigidity and complexity mean that changing, testing, and releasing back to production all happen at a glacial pace. See the July 10, 2014, “Transform Application Delivery To Improve Business Agility” report.

5 For example, only 70% of department or business unit-level technology and business decision-makers indicate “integration with other software applications/tools” is important (4 or 5 on a scale from 1 [not at all important] to 5 [very important]) as a purchasing decision criterion while 89% indicate “features and functions” is important. In contrast, these two criteria are equally important to C-level respondents with 82% indicating they are important. Source: Forrester’s Business Technographics® Global Software Survey, 2014.

6 For deeper insight into the TechRadar methodology, check out Supplemental Material section of this document and see the August 1, 2007, “Introducing Forrester’s TechRadar™ Research” report.

7 For more information, see the January 13, 2015, “The Forrester Wave™: B2C Commerce Suites, Q1 2015” report.

8 Capability mapping collaboratively describes the enterprise’s ability to execute its strategy by modelling business capabilities and identifying gaps. Capability map development and analysis identifies what must change, without being overly prescriptive or parochial so that all stakeholders can agree to a description of enterprise needs. See the September 15, 2014, “Combine Effective Processes With Tailored Deliverables To Drive EA’s Impact” report.

9 B2B companies by their very nature conduct business with a large number of suppliers, distributors, and customers. As such, they require global commerce service providers (GCSPs) that have demonstrated expertise in supporting many-to-many and integrated commerce networks — such as enabling a distributor to engage in buy-side behavior with a supplier while simultaneously supporting a sell-side value proposition to B2B customers. In addition, they need GCSPs that have experience operating in several different verticals, mirroring the business ecosystems of many large multinational B2B companies. See the December 19, 2014, “Deliver An Effective Technology Infrastructure For Global B2B eCommerce” report.
About Forrester

A global research and advisory firm, Forrester inspires leaders, informs better decisions, and helps the world's top companies turn the complexity of change into business advantage. Our research-based insight and objective advice enable IT professionals to lead more successfully within IT and extend their impact beyond the traditional IT organization. Tailored to your individual role, our resources allow you to focus on important business issues — margin, speed, growth — first, technology second.

FOR MORE INFORMATION
To find out how Forrester Research can help you be successful every day, please contact the office nearest you, or visit us at www.forrester.com. For a complete list of worldwide locations, visit www.forrester.com/about.

CLIENT SUPPORT
For information on hard-copy or electronic reprints, please contact Client Support at +1 866.367.7378, +1 617.613.5730, or clientsupport@forrester.com. We offer quantity discounts and special pricing for academic and nonprofit institutions.

Forrester Focuses On Application Development & Delivery Professionals

Responsible for leading the development and delivery of applications that support your company's business strategies, you also choose technology and architecture while managing people, skills, practices, and organization to maximize value. Forrester's subject-matter expertise and deep understanding of your role will help you create forward-thinking strategies; weigh opportunity against risk; justify decisions; and optimize your individual, team, and corporate performance.

« ANDREA DAVIES, client persona representing Application Development & Delivery Professionals

Forrester Research (Nasdaq: FORR) is a global research and advisory firm serving professionals in 13 key roles across three distinct client segments. Our clients face progressively complex business and technology decisions every day. To help them understand, strategize, and act upon opportunities brought by change, Forrester provides proprietary research, consumer and business data, custom consulting, events and online communities, and peer-to-peer executive programs. We guide leaders in business technology, marketing and strategy, and the technology industry through independent fact-based insight, ensuring their business success today and tomorrow.