



A CONSUMER GOODS TECHNOLOGY EXECUTIVE WHITE PAPER

# TWO-WAY STREET:

## Optimizing Inbound and Outbound Supply Chain Execution

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Cognizant

**C**onsumer good companies' efforts to streamline and optimize their supply chains have traditionally focused on outbound movement—toward distributors, retailers and the ultimate end user, the consumer. It's only logical that CG companies would operate from the "inside" out: getting products efficiently and cost-effectively from the manufacturing plant to the retailer's shelf is the lifeblood of any successful company.

Another reason for the traditional "outbound" focus among CG companies is that they generally have had the most information about their own processes, products and capabilities. Better access to information has given companies a greater ability to control and streamline the downstream movements of their supply chains.

In contrast, "inbound" information—about in-stock percentages, retail sales, promotion effectiveness, consumer trends and other key variables—has often been incomplete, slow to arrive, or contradictory. Further, many CG organizations have lacked the ability to gather such data into a central repository, or to apply the analytical tools that would filter out the "noise" and create "one version of the truth" that would be useful to various parts of the enterprise.

While many CG companies are still struggling with the effects of poor data visibility and information integration, a number of industry leaders are optimizing their supply chains with as much regard for "inbound" as "outbound" information, with strong positive results for both top-line revenues and bottom-line cost efficiencies.

## Demand-Driven Supply Chain Basics

Like pedestrians crossing a busy two-way street, CG companies looking to make their supply chains more open to two-way "traffic" need to remember the basics. Roddy Martin, General Manager and VP for Process Industries at AMR Research, laid out three important initial steps for companies considering such a transformation.

- **Get buy-in from business leadership:** "One of the most important pieces is that the business executive leadership team has to buy in to the strategy of moving to a demand-driven organization," says Martin. "You can't do this from the bottom up. Unless the executive leadership understands why moving to a demand-driven model is so critical, don't even start such a project."
- **Use available data sources:** "There are different silos of downstream data that are already available in an organization, and they are probably already being used in point solutions, spreadsheets and downstream functions," says Martin. One way to make use of this existing data is to drive a sales and operations planning (S&OP) process that makes use of demand intelligence as well as the capabilities and capacity of the manufacturing side. "Then when a demand-driven opportunity comes up in S&OP, the financial side can say yes, they understand the trade-offs that would be involved, and the product supply side says yes, they can support this opportunity, and that's where you start to drive the change. Most big companies—Unilever, Procter & Gamble, Samsung Electronics—are involved in revitalizing their S&OP processes."
- **Ensure product supply reliability:** "If your manufacturing side is grappling with issues such as not producing products to specifications or to supply chain schedules, or is producing things that need to be recalled, that's when different parts of the supply chain start holding back and using inventory 'buffers,'" says Martin. "Companies like Procter & Gamble have spent years removing variability from their product supply operations so that they can be very responsive to opportunities they see when they mine the demand data. You can have all the demand visibility in the world, but if you don't have reliable manufacturing, you're in trouble."

These companies are looking at supply chain optimization from a business perspective first, and then seeking the appropriate information technology solutions that will allow them to meet their goals.

These efforts, which can create a more holistic approach to solving supply chain challenges, can be facilitated by companies such as

chain—a simple-sounding concept that actually raises a host of complex issues.

One challenge is simply gathering and integrating a lot of incoming data. “Commercial and marketing organizations have many streams of data coming in to them,” says Roddy Martin, General Manager and VP for Process

gets it right,” says Martin. “Even with a multi-tier distribution system, they can get an accurate cost per case of Coca-Cola anywhere in the world. In general, we’ve found that companies who achieve a 10 percent demand visibility improvement can translate that into a 20 percent improvement in perfect orders.”

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Cognizant, which combines a deep understanding of the business issues facing the CG vertical with a company-specific approach to IT solutions. In addition to analyzing the company’s current IT architecture, Cognizant can also provide the expertise and manpower to purchase or build appropriate applications, and to deploy and maintain those applications effectively.

### **SUPPLY CHAIN OPTIMIZATION: WHAT'S AT STAKE?**

CG companies face numerous challenges in realigning their supply chain from an “outbound” to an “inbound” focus—what many industry analysts have identified as a demand-driven supply chain or a demand chain. One major issue is improving visibility into the supply

Industries at AMR Research. “There’s point of sale data, loyalty card data, third-party data from companies such as IRI and Nielsen, intelligence from merchandisers and VMI [vendor-managed inventory] information. The problem is that all this data goes to many parts of their own organization, and it’s not consolidated. So when these companies sit down to try to figure out what consumers want, there’s not ‘one version of the truth’ available from the demand side.”

Martin notes that demand visibility challenges are as much related to business structures as to IT capabilities. “It’s an organization problem and an IT problem,” he says. But for CG companies that can address these challenges, the rewards can be significant. “Coca-Cola is one of the companies that

Another key challenge for CG companies is making the business case for transforming to a more demand-driven supply chain. “The big difference from the traditional organization that depended on forecast accuracy and capacity utilization is that the metrics used were inside out,” says Martin. “Questions were about things like, How much inventory is in the system? What are my supply chain costs? Is my data synchronized? What are my manufacturing costs? What are my waste levels?” While all these questions are important, “none of those things guarantees a company can produce a perfect order,” says Martin.

He also identified some “outside-in, demand driven” metrics: “What are my shelf in-stocks? What are the root causes of me not deliv-

CASE STUDY | COORS BREWING COMPANY

# Web Tools Speed Data “Traffic” for Coors Distributors

Like many CG companies, Coors plays to multiple “audiences”: consumers of course, but also the retailers who sell to them and the distributors who sell to the retailers. Simplifying and speeding both the ordering and returns processes for this last crucial group has been accomplished with the help of Web-based tools, implemented as part of a general supply chain improvement process and facilitated for Coors by Cognizant.

The ordering tool, known by the acronym POINT (Product Ordering Inventory Net Tool), was deployed two years ago and is now used by Coors’ entire network of just over 500 distributors. The tool is integrated into Coors’ SAP ERP system, allowing it to present near real-time data to distributors; the previous application had data that was updated nightly and in some areas weekly.

The tool’s integration, along with a range of supply chain improvements, has significantly shortened the lag time between ordering and shipping, according to Brenda Davis, CIO, Coors Brewing Co., Golden, CO. “Distributors used to produce a four week out forecast, but now they order today for shipment next week,” she says. “In addition, the feedback we’ve heard from the distributors is that this tool is best in class compared with other ordering tools that they use.

“It’s extremely important for us to keep our distributors happy,” Davis adds. “One of Coors’ stated goals is to improve the profitability of all three tiers of the business, so this provides a benefit to us as well as the distributors. The softer bene-

fits are in the relationships with the distributors—the easier we make it to do business with Coors, the more we’re able to increase share of mind with distributors who are selling other products besides ours.”

## FASTER, CLEANER ORDERS

In addition to shortening delivery lag times, the POINT tool also speeds up the ordering process itself, according to Jeff Wheeler, IT Business Partner at Coors. “We had heard about distributors previously spending as much as eight hours per week on the entire ordering process, and with this tool it’s down to two hours in some cases,” says Wheeler. “That may be an extreme example, but it’s certainly not uncommon to hear about distributors cutting their ordering time in half.”

POINT offers distributors a wide range of information to help them not only speed but refine their ordering. “It brings them a lot of information, including what they had sold historically, forecast assistance, inventory data, as well as product and trend information,” says Wheeler. “It provides them with all the information they need, at their fingertips, to help them understand what to order next.”

The combination of ease of use and improved information flow means shorter ordering time has not been purchased at the expense of order quality; in fact, since the POINT tool was deployed, “the number of order changes has gone down astronomically,” notes Wheeler.

Cognizant played key roles in the development and deployment of this system.

“They wrote 100 percent of the application, and their team provided quite a bit of input into its design,” says Wheeler. “We already had a working application and had done the majority of the requirements for the new one internally. Cognizant took the application, made some recommendations on things that could work differently and re-engineered the application from the IT standpoint, especially in terms of integrating it with our internal systems.”

Cognizant also was instrumental in implementing Coors’ Web-based reverse logistics returns process, which had previously been managed via faxes. Coors was seeking to reduce the amount of time required for its Reverse Logistics Coordinators to manage return shipments, as well as to facilitate the discrepancy and claim processes for distributors and provide visibility to the distributors’ dunnage inventory in order to prevent overpayments.

The tool’s visibility has provided measurable business benefits to Coors, allowing it to reduce the reverse logistics department’s operating budget and eliminating overpayments to distributors for non-existent dunnage inventory.

Cognizant’s work on these tools as well as ongoing application development and support work at Coors draws praise from Davis. “They have a solid offshore model and good processes around that,” she says. “Their flexibility and responsiveness are good, as is their quality. We see Cognizant continuing to play a strong role with application development and support, and as long as it’s successful we could see it extending to other Coors business units and divisions in the U.K. and Canada.”

ering perfect orders to my customers? What are the customers buying? And what is the category performance profitability, all the way to the retail shelf?”

While a CG company’s ability to collect, analyze and distribute data that will help answer some of these “outside-in” questions is crucial, Martin notes that it’s also important for companies to prioritize according to their own business needs. The goal is to get “good accurate data in appropriate time, meaning it doesn’t all need to be available in real time,” says Martin. “If it’s information about stock-outs, it does need to be real-time data. But if it’s segmentation and profitability analysis, it doesn’t need to be available in real time.

“If I have demand intelligence, and can put inventory in the right place at the right time—in other words, if I can deliver more perfect orders with less cash costs and less inventory in the supply chain—that’s a competitive capability,” he adds.

## FINE-TUNING VISIBILITY

Just as CG companies need to assess the required “freshness” of various types of data, they also need to be aware of how much, and what types, of data to share with their trading partners in order to achieve maximum demand chain efficiency. Again, business issues need to determine IT strategies, according to Andrew White, Research VP for Supply Chain Management at Gartner.

Determining how much visibility is optimal can be tricky, especially with multi-tier distribution systems. “The concept of the demand-driven supply chain isn’t new, but what is new is the ability to get information describing consumer behavior simultaneously through multiple tiers of the supply chain,” said White. When this is done, “stakeholders get a much clearer view of what’s going on in the market. That’s both good news and bad news. Sometimes it makes people more nervous, so companies need to interpret

the data and assure that each stakeholder has the same interpretation.”

Unmediated visibility can, for example, exacerbate the issue of excess inventory in the supply chain rather than relieve it, according to White. “If there’s a lift in consumer demand, it can lead retailers to put in additional safety inventory; likewise the distributor, likewise the manufacturer,” says White. “That leads to a lot of ‘padding’ and waste.”

On the other hand, it’s possible for CG companies to go too far in the direction of what White calls the “chaos-resistant” or “post-lean” supply chain. “There’s a flaw in the idea that the supply chain can be made ‘lean,’” says White. “It can in some places, but companies can’t make things so lean that if one factor changes, everything comes to a grinding halt. There needs to be tolerance and the understanding that some forecasts will be inaccurate. CG companies have to be prepared to cope with that and be flexible.”

One of the ways to increase both accuracy and flexibility is for CG companies to aim for “intelligent consumption of the data that’s being made visible,” says White. “A good example is in event management. Companies might spend a lot of money improving data flow, but in truth they should really only be interested in the areas that are exceptions. It’s less important to see and track everything than to monitor the exceptions.”

Another key area for CG companies to examine is the way that they manage performance. “We find that the companies that are doing well appear to have solved the problem of paying and

rewarding their people,” says White. “As opposed to the usual procedure of paying within each company, or to a department within a company, the success stories are often those that are rewarding people on a multi-enterprise, multi-departmental basis.”

In contrast, many companies “still pay their sales reps to over-deliver against the forecasted numbers,” notes White. “This shows that the company doesn’t really understand the value of the forecast. These cultural issues, and how people are paid and rewarded, are still very important drivers to the success or failure of a project.”

### **BUSINESS GOALS LEAD IT SOLUTIONS**

The type of holistic, integrated, business-led approach described by both AMR’s Martin and Gartner’s White is exemplified by Cognizant’s approach to the consumer goods vertical.

“We address strategy issues up front,” notes Mani Agrawal, a Principal at Cognizant. “Then we work with the company to fix the supply chain strategy so that it aligns with the business strategy.”

Cognizant starts its process by focusing on a CG company’s broad objectives. “We’ll establish whether their focus is on top-line revenue growth or on cost containment,” says DK Sinha, General Manager of Manufacturing, Logistics and Retail at Cognizant. “We’ll talk to them about targets for the upcoming year around revenue as well as getting costs out of the business. Everyone is trying to figure out how they can optimize their supply chain in order to deliver prod-

ucts more cost-effectively and get costs out of the whole structure.

“Other areas we’ll delve into include the company’s working relationships with its trading partners, such as suppliers and distributors,” adds Sinha. “We’ll try to understand the issues involved, and whether there are cost ‘leakages’ occurring within those relationships.”

Understanding trading partner relationships is crucial for Cognizant’s approach to CG companies, especially given the amount of collaboration and data exchange needed to achieve a demand-driven supply chain. “We see collaboration as a big, hot area,” says V Mahesh, VP of Manufacturing and Logistics at Cognizant. “For example, to achieve integrated marketing and work on CPFR (Collaborative Planning, Forecasting and Replenishment) between CG manufacturers and retailers, there’s a lot of data that needs to flow back and forth.”

Cognizant brings to bear strong capabilities in integrating data from multiple sources, including POS, loyalty cards and third-party providers such as IRI and Nielsen, and can also assist CG companies in applying business intelligence to these multiple data streams. In fact, Mahesh stresses that Cognizant makes sure to understand the business issues involved in all of a company’s relationships. “Our first step is business ‘blueprinting’ and then establishing a business road map,” he says. “We help our customers come up with the solution to their business problem. If it calls for a custom IT solution, we can help them build that solution from scratch. We can also customize or inte-

grate with a third-party product, and then implement it for the CG customer. In other instances, if there's someone else doing the product implementation, we can provide product, process or change management services."

## A HOLISTIC APPROACH

A key tool Cognizant uses as it moves from business needs to IT strategies is gap analysis. After identifying a company's requirements and then looking at a particular product or application, Cognizant can note that it might match 75 percent of the company's requirements, and then can determine what's needed to close the gap to take it to 100 percent. It could require systems integration, customization, or an additional module or package.

"Aligning strategies such as sourcing, asset conversion and distribution is a critical component to the overall success of a company's supply chain," says Sinha. "To be successful, companies must plan their end-to-end supply chain to operate as a seamless process, with the individual components complementing each other as opposed to creating barriers."

Cognizant is sensitive to the problems that can arise when organizations fail to align new or revamped systems with existing behaviors. "If a plant manager's incentives are tied to production, whether or not there's a demand for the product isn't his concern," says Agrawal.

"Aligning key performance indicators to business needs was a missing piece for companies for a long period of time, and it's

one of the reasons a lot of solutions didn't work in the past. The IT systems were in place, and they may have improved on what came before, but they didn't work together."

To combat this type of misalignment, another Cognizant tool is impact analysis. Cognizant examines how introducing a new solution into the supply chain will affect other areas of the CG company's organization. "We provide an analysis of what's needed to

are too inflexible, that creates a lot of tension, and it doesn't always deliver what the customer needs."

## CONCLUSION

All of Cognizant's work is informed by its deep understanding of the CG industry, reflected in both its structure and its personnel. "In addition to the technology people we employ, we have business school graduates and people from within the consumer goods industry," says Mahesh. "These are people who

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**— Andrew White, Gartner**

make the enterprise holistic," says Sinha.

To implement these business-led transformations, Cognizant uses a "blended shore" delivery model. "There's an onshore team that works to understand customer requirements and demands, and an offshore delivery engine that actually makes things happen," says Sinha. "This allows us to stay closer to our customers in order to meet the demands of their changing environment. When you go through any project, things change. If your structure and requirements

understand the industry's issues, so they can provide solutions that can be taken to market."

"The Cognizant business model is industry focused, with horizontal competencies such as data integration and analysis as well as supply chain optimization," says Francisco D'Souza, Cognizant's COO. "When there's a Cognizant team with CG experience working with a consumer goods company, we team up to create a strong relationship that provides outstanding business results for the client." ■



## ABOUT COGNIZANT

Cognizant (NASDAQ: CTSH) is a leading provider of IT services. Our more than 25,000 employees share one single-minded passion: Dedicating our systems expertise, industry intelligence and global resources to working closely with clients to make their businesses stronger. We combine a global delivery model with deep knowledge of how IT can improve productivity, lower costs and provide better products and customer service. Cognizant provides applications management, development, integration, infrastructure management, business process re-engineering and outsourcing, and a number of related services such as enterprise consulting, technology architecture, pro-

gram management, and change management. We are pleased to be a member of the NASDAQ-100 Index and to be recognized by *Business Week* as one of the world's premier information technology companies. Our greatest satisfaction, however, comes from collaborating with clients to leverage technology to make their businesses run better, compete harder, and win the race for the future.

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