



OLIVER WIGHT CASE STUDY SERIES

S&OP Gives Caterpillar a Competitive Edge

"S&OP helps you get a good, accurate forecast number. The framework allows you to respond very quickly, which is pretty important from our standpoint. A quick response avoids or minimizes disruptions... and can yield more sales"

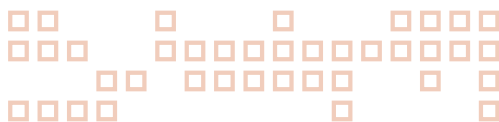
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Oliver Wight

OLIVER WIGHT



together we make a difference



Caterpillar North American Commercial

Highlights:

- Caterpillar's North American Commercial Division markets products from many plants and manages the company's North American dealer network.
- The division needed to coordinate its efforts more effectively with the manufacturing units on one side and independent dealers on the other.
- Monthly Sales & Operations Planning meetings were introduced to help align team members on a commercial strategy and agree upon sales numbers.
- Education and practice have enabled Caterpillar to achieve Class A, and 6 Sigma has begun to bring continuous improvement.
- Confidence in NACD's numbers enabled dealers to reduce inventory, while stabilizing product availability and reducing overall costs.

As an industry leader, Caterpillar and its retail distribution network are continually under increasing competitive and cost pressures. Almost all its retail sales in North America are made through independent dealers. Since CAT covered 75% of the carrying cost of inventory, those dealers tended to overstock - carrying 3.5 to 4 months of sales in inventory. This was expensive for CAT, and it exacerbated occasional inventory bubbles at CAT itself. The challenge was how to reduce unproductive cost, improve efficiency and not compromise customer service.

With over \$20 billion in sales and revenues, Fortune 100 company Caterpillar manufactures its lines of construction and mining equipment in 48 plants in the U.S. and another 58 plants in 20 different countries. Its North American Commercial Division is responsible for distributing CAT products in markets that account for fully half of total sales. Caterpillar manages its decentralized and independent network of 63 U.S. and Canadian dealers and hundreds of locations with a single marketing organization: the North American Commercial Division. In effect, NACD is a wholesaler positioned between many of CAT's factories and its retailers. However, the structure that CAT put in place inevitably made its internal communications and coordination more difficult than if each product line had an integral marketing team. NACD was the right structure in light of the established distribution network. But, it now needed to respond to competitive pressures - and to an important cost-control challenge.

Approximately 10 years ago, Caterpillar reorganized the company into parallel business units: responsible for manufacturing, marketing and common business services. NACD discovered that this split made coordination with manufacturing more of a challenge.

"When you break into a decentralized organization, people can get into silos," said NACD S&OP Manager Dale Roberts, "They can easily forget about the overall company interests and concentrate on their own. So the issue becomes one of trying to balance those individual interests, which are constructive in many ways, and still keep everyone focused on the needs of the total company."

While this decentralized structure had worked well, there were pressing reasons to search for further improvement. Specifically, the group wanted to



“S&OP has been ‘Win-Win-Win’ for NACD, manufacturing, and our dealers...”

ensure that manufacturing and marketing had common strategies and that any action the two groups took was the result of a consensus they had arrived at jointly. Doing so would, the group hoped, improve efficiencies, response time, and, ultimately, financial returns. NACD needed to get better sales projections from dealers, while persuading those dealers that they could hold lower inventories of CAT products.

At this point in time, Caterpillar CEO Glen Barton challenged each CAT division to perfect its key processes by seeking Class A certification. NACD responded by bringing in Oliver Wight consultants to assist in the project. John Pfeffer, then Vice President of NACD, concluded early on that Sales & Operations Planning could be the key to improvement. NACD and Oliver Wight quickly began to create an S&OP process and infrastructure. This, of course, required the closest coordination with both manufacturing and the dealer network.

“The goal here was to set a valid production plan each month,” said Oliver Wight consultant Pete Skurla. “NACD, as the major marketing organization, took mutual responsibility as the co-owner of any such effort. Such a joint effort would help the plants manage any risk associated with a new strategy.”

The problem was that CAT’s marketing organization and the manufacturing groups often had been working with two sets of numbers, while each dealer tended to operate on their own.

“A lot of times the marketing company might have a number that they would go with while the plant would have a different point of view,” Roberts said. “One group didn’t always believe the other’s numbers.”

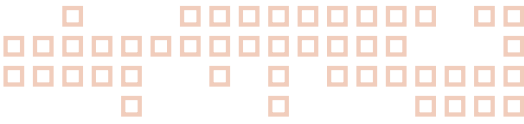
Sales projections and production plans had been formally reviewed quarterly and that was proving not frequent enough to handle a volatile market and inevitable changes in retail demand.

S&OP Acts as Umbrella over Business Planning

While many view Sales & Operations Planning as only a means to gain control and coordination of the operational elements of a business, it also acts as a good way to capitalize on opportunities by using the monthly planning sessions.

“If forecasts change, the framework allows company groups to respond appropriately,” Roberts said. “It also helps assure that the right product is available to make the sale, while keeping inventories to a minimum. S&OP becomes a decision-making tool to keep the company on track with its growth and other critical success factors.”

Regular, monthly meetings provided the key to NACD’s improvements. Using this vehicle enabled management to make better decisions with the knowledge that they would be implemented quickly. The group would agree upon strategy issues in advance and document them in a formal manner. This assured prior alignment of both marketing and management issues. As a result, Roberts indicated, the team would not be debating the strategy each month.



Skurla agrees. “The S&OP process contributed to less variability in the process,” he said. “The environment encouraged management teams to make changes as soon as they were aware of new information, instead of holding on to a business plan too long. As a direct result, adjustments fell within a more reasonable range and the division avoided major inventory bubbles for the plants to deal with.”

The Caterpillar team saw outside consultants as catalysts for the actions they undertook. “In the early days of the S&OP implementation, it was critical to have a third party present, particularly when marketing and plant personnel disagreed,” Roberts said. “It was helpful to have an objective third party who could broker the ideas and be objective. Pete would sometimes pitch our ideas back to us and tell us where we’d gone wrong. That’s harder for an internal group to do. Their objectivity and experience was quite helpful.”

Bringing the Dealers into the Process

Using Sales & Operations Planning to achieve better alignment within CAT was only half the story. Another payoff would come through improving dealer input, increasing dealer alignment and reducing dealer inventories.

Many dealers and personnel from NACD districts hold monthly meetings to formulate their request for product. Adjustments are encouraged, not discouraged. Plant schedulers are now better able to take a ‘pulse’ of the market and to refine their plans. Terry Powell, Scheduling and Order Entry Manager for Caterpillar’s Track Type Tractor Division (NACD’s largest internal supplier) observes that “our managers, working with the Dealer Demand Management System, have a much improved market outlook and are able to react much quicker. NACD is really helping our factory to keep output up and costs down.”

More active and more structured input by dealers has helped them to buy into the new process. The result over time has been a virtuous cycle. Improved scheduling and shorter product delivery times have enabled dealers to reduce their inventory while still anticipating and meeting end-user demand.

“S&OP has been ‘Win-Win-Win’ for NACD, manufacturing, and our dealers,” says Roberts. “We used to spend weeks preparing for and conducting each quarterly strategic review. With S&OP we don’t need quarterly reviews. Now, about 30 people each spend about 10% of their time preparing for and participating in the new monthly process. It takes no more time or resources than our former approach, and it works much better.”

The New System Passes Muster

Roberts credits the S&OP Course with pointing the group in the right direction and improving collaboration with the manufacturing units and the dealers.

Caterpillar’s NACD implemented these key steps:

- The division established monthly S&OP meetings to ensure a single set of numbers.
- Marketing collaborated more closely with the manufacturing plants and the dealer network so the groups could more accurately schedule production and anticipate demand.



- The group rigorously followed the steps outlined *The Oliver Wight ABCD Checklist for Operational Excellence* like a 'cookbook.'
- Caterpillar started with commitment from top management to ensure the success of the program.
- The group critiqued each meeting in order to continuously improve.

Working with Oliver Wight, the Caterpillar North American Commercial Division achieved Class A Business Excellence with these results:

- Dealer inventories have already been cut by one month of sales.
- The S&OP process made product availability much more consistent and eventually reduced order lead time.
- Reduced dealer inventories enabled the company to save \$20 million in avoided interest expenses and to free up about \$500 million in capital for investment elsewhere.
- Caterpillar was able to better direct merchandising expenses and optimize its overall cost structure.
- CAT improved its long-term competitiveness.
- With the new process firmly in place, the stage has been set for CAT's new 6 Sigma initiative to achieve continuous improvement.

What is Class A?

When a company achieves Class A Business Excellence, as measured by *The Oliver Wight ABCD Checklist*, it effectively uses its operational and management processes company-wide to achieve a strong competitive footing. Oliver Wight introduced the *ABCD Checklist* in 1977 and updates it regularly to reflect new standards of competitiveness.

What is Sales & Operations Planning?

Sales & Operations Planning is a process led by senior management that, on a monthly basis, evaluates revised, time-phased projections for supply, demand and the resulting financials. It's a decision-making process that ensures that the tactical plans in all business functions are aligned and in support of the business plan.

The objective of S&OP is to reach consensus on a single operating plan that allocates the critical resources of people, capacity, materials, time, and money to most effectively meet the marketplace in a profitable way.



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