Information to reporting to smarter operations: Performance management at Dr Pepper Snapple Group

In a global economy, manufacturers can't afford lackluster performance. They have to get the job done faster and still maintain a high level of quality. Competition, market trends and increasingly complex supply chains add to the challenge.

When timing and quality control are paramount, organizations need to be able to analyze and measure results. So they can better manage operations and drive down costs. With this in mind, Dr. Pepper Snapple Group chose IBM® Cognos® software to power its performance.

Dr Pepper Snapple Group is one of the largest beverage companies in the Americas. The company manufactures, markets and distributes more than 50 brands of carbonated soft drinks, juices, ready-to-drink teas, mixers and other premium beverages across the United States, Canada, Mexico and the Caribbean.

With nearly $6 billion in annual revenues, the company has approximately 20,000 employees, 24 manufacturing facilities and more than 200 distribution centers across North America.

This case study will focus on how Dr. Pepper leveraged IBM Cognos software to:

- *Provide in-depth insight into production and operations.*
- *Gain access to information that was previously unavailable.*
- *Help identify manufacturing inefficiencies to reduce costs.*
- *Gain fact-based analytic and decision-making capabilities.*
- *Prioritize investments.*
- *Drive continuous improvement across the organization.*

The result: Plant managers have unprecedented visibility into their operations so they can identify production bottlenecks, resolve operational issues and optimize business performance.

What's more, they can obtain this information when they need it without having to wait for IT to create or run reports for them. Plant staff can use IBM Cognos software with little or no training, enabling the company to realize a rapid return on its investment.

Business background and the case for change

When you're dealing with big production volumes, efficiency is paramount. You have to eliminate waste

and downtime as much as possible. The challenge is finding where those inefficiencies are occurring.

In the case of Dr Pepper Snapple Group, plant managers needed insight into how efficient their production lines were running.

"When it comes to manufacturing, it all comes down to cost," says Craig Sindorf, BI manager of supply chain at Dr Pepper. "For us, the main goal is to reduce cost per case. So you've got to find every feature, everything that goes into what it costs to make your product, and then start being able to nail down where you're losing money, because waste just doesn't work."

The challenge was to find a platform that would allow plant managers to analyze and report on production line data. A performance management solution offered the answer.

"What was brought aboard was a way to record just how efficient the lines are running," notes Sindorf. "Since we have a 24-hour day to make products, we need to do it efficiently. We collect production data, but we need to report on and analyze it. That's where the Cognos tool has provided real value."

Another requirement: the solution had to be easy to use. If it was something the business side could own and manage, it would take a lot of pressure off an already overloaded IT department.

The implementation

The company had been using IBM Cognos applications in different divisions for many years, including Cognos reporting and earlier versions of PowerPlay®.

In this case, the supply chain group wanted to implement IBM Cognos 8 BI. The group consists of 20+ production plants.

"Cognos was the only tool that had the reporting and ease of use we wanted," says Sindorf. "We wanted the graphical interface. We wanted a zero footprint. And we wanted it to be very easy for the end-user to use with little to no training. Cognos was it. There wasn't another vendor even thought of."

The solution took about six weeks to get up and running. Initial deployment included a dashboard, some basic reports, metadata and a cube to provide detailed supporting information for the dashboard.

In addition to ease of implementation, according to Sindorf, a big selling feature of the IBM Cognos platform was the built-in flexibility to start small and grow with the needs of the business.

"You start talking with some companies; they say yes, we can put that in for x dollars. The next time you want to add to it, it's another x dollars. With the Cognos suite, you add the suite and you're done. After that you just pay yearly maintenance and you just make it grow until you can't grow anymore."

Business impact

Using IBM Cognos, management has been able to measure several key metrics that provide critical insight into production line efficiency.

"You have something that fills a bottle, or fills a bag with potato chips and then seals the bag, puts the bag in the box, seals the box, puts the box on the pallet," notes Sindorf. "Anything can go wrong between the potato chips falling in the bag and the cases being put on the pallet."

He continues: "The focus is on three simple measures: how much product did they make, how much could they have made and how efficiently was it made."

The metrics are pulled from .NET application data that basically shows inputs, a product and how many of those products are made in a period of time. Some "back-end" calculations or benchmarks are also included to show capacity (how many products should be produced), for example, in an hour.

"Let's say the machine is run for eight hours," Sindorf explains. "Product yield should have been 1,000 cases, but only 500 cases were made. We need to understand what happened; in this case the line only ran at 50-per-cent efficiency.

"We need to understand machine downtime, the reason production was off and if there are repairs or other actions we need to do to resolve the issues."

All this information helps the company make smarter decisions about where to spend, where to control costs and where machines can be put to best use.

Controlling spending and costs
On the one side, management has to decide on things like where to focus spending so it has the greatest impact.

"Part of the benefits of reporting is pointing out some issues with particular pieces of equipment," says Sindorf. "So we have facts to determine why equipment expenditures at any of our locations is necessary."

"The tool has shown several areas that will help us pinpoint where to spend money, so when we plan our capital budgets, we use our investments wisely. We're not wasting money."

In other words, it comes down to getting the most return for the dollar. As Sindorf suggests: why spend funds on something that will gain you 1 percent efficiency, when you can spend a tenth of that amount and see an efficiency gain of 30 percent?

Just as critical, managers have to determine how best to fill orders in terms of machine capacity, availability and location. Insight into line efficiency helps to make this kind of decision-making easier.

"In our business, sales drives production requirements," says Sindorf. "They dictate inventory needs by geography based on demand from our customers, and we need to drive production to match demand.

"Let's say we can make five tons in one state. If we need nine tons, some has to come from another location. Where can it be made and where can we ship it that's most cost effective? Because it all goes into the cost of goods sold. The idea is to get it to market as cheaply and as efficiently as you can."

Next steps
Over time, the IBM Cognos tool has grown to include more reports and metrics. The idea right from the outset was to let users decide on requirements and start creating what they needed.

"What we have done is actually empowered the plants to gather the information that *they* need," says Sindorf. "So that way, if they're looking for information, they get it when *they* need it, and they aren't dependent on our development team to get information for critical decisions."

He says the company's future plans are to continue to expand in this way – to give users more reports, metrics and analysis as required.

"There are always future plans. We are getting requests for more dashboards, from our managers. Charts and graphs give them instant answers to questions. A graph gives you an instant picture of good or poor performance. If you have color bars and a line, it tells you at a glance what your goal is and how close you are to achieving it.

"And the manager can say okay, I've only got a little bit more to go and we'll hit that goal and we can go on to the next project."

About IBM Cognos BI and Performance Management

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