

SAS in Manufacturing: Developing the Industry Approach

PERSPECTIVE #CEMA17481
Craig Simpson

IN THIS PERSPECTIVE

IDC Manufacturing Insights was recently invited to Inside Intelligence 2011, the industry analyst conference organized by SAS, a well-known leader in the business intelligence and analytics industry.

This IDC Manufacturing Insights perspective discusses some of the key new product offerings by SAS, with particular emphasis on their manufacturing application. The talk around the conference, stirring up much debate and conversation, was "Big Data" and social analytics; two key areas many organizations have yet to tap and realize its full potential.

Generally, however, SAS is still relatively unknown by many manufacturers in Central and Eastern Europe (CEE) and Middle East and Africa (MEA), yet it provides some of the strongest business intelligence (BI) capabilities with one of the best industry track records to speak of. It is certainly a vendor to add to your short list for your next BI investment.

SAS Overview

Once again, SAS did not disappoint in 2010, continuing what seems to be its invincible growth pattern since being founded in 1976. That means SAS has had an impressive 34-year growth streak, something very few companies in the world can boast. The company posted revenue of \$2.4 billion in 2010, representing overall revenue growth of 6.7%.

SAS reported revenue growth across all its operating regions, the strongest of which was Latin America, which was up 19.9% from 2009, followed by Canada and Asia Pacific (AP), up 8.8% and 8.4%, respectively. However, the contribution of these three regions' to the company's total revenue are small in comparison to U.S. and Europe Middle East and Africa (EMEA) operations, which account for about 80% of total business, with EMEA holding a slim majority of this portion of the company's revenue.

What is most interesting about the SAS model is where it generates its revenue – more than two-thirds derives from existing customers. SAS prides itself on the strong relationships it has developed with its customers over the years. SAS also stated that just over 90% of its

business is generated through direct sales over its local networks of some 400 offices. This provides current and future clients with personalized service, while SAS gains a far greater understanding of individual business needs.

New sales growth was varied: Central and Eastern Europe showed relatively flat growth, up just 1.7%; Southwest Europe was down 1%; and the Nordic countries dropped as well, by 4.9%. On the other hand, there were major new sales growth areas: India and Thailand expanded 66.4%, the United Kingdom and Ireland was up 38.9%, North Asia increased 27%, Southeast Asia rose 23.8%, and the Middle East and Africa was up 15.6%.

Regional Industry Focus and Breakout

In recent years, SAS has instituted an industry-focused strategy, providing vertical-specific and cross-vertical solutions. It is often far easier for businesses to understand the capabilities of SAS solutions when they are relevant for their industry. At the same time, providing packaged applications to cross-vertical areas, such as marketing or supply-chain practitioners, allows for far easier financial justification and much simpler implementation than the more foundational tools that SAS used in the past. IDC Manufacturing Insights believes SAS has some distance to go in tailoring solutions to various vertical markets, although it has made good progress.

The majority of revenue generated in terms of industry breaks down as follows: 42% from financial services; 15% from government; 11% from services; 7% from communications; 6% from life sciences; 5.5% from manufacturing; 4.5% from retail; 3% from education; 3% from energy and utilities; 2.5% from healthcare; and 0.5% from other general industries. In EMEA, the top performing industry in new sales growth for SAS was life sciences, followed by retail and insurance. In AP, the top performing industry in new sales growth for SAS was energy and utilities, followed closely by manufacturing, and life sciences.

Continued Drive for Industry-Specific Approach

IDC Manufacturing Insights introduced SAS's shift towards industry-specific solutions back in 2009, when the company moved away from its traditional IT focus. According to recent research by IDC Manufacturing Insights, the top characteristic manufacturers look for when choosing an IT vendor is the ability to understand their specific business and industry. In analytics and business intelligence, this is even more important, as the conclusions that come out of the solutions have a profound effect on strategic business planning, operations, legalities, large-scale investment and maintenance, asset and resource planning, and a host of other tactical decisions. The industry-specific approach was emphasized by SAS once again at Inside Intelligence and bodes well for the company in the future; building around business solutions and not merely IT applications.

Given SAS's continued push towards the industry-specific approach, IDC Manufacturing Insights believes SAS has a great opportunity to further develop its industry-specific solutions for the manufacturing industry, thereby driving future growth.

A Look at the Past

This is the third perspective IDC Manufacturing Insights has compiled on SAS following their annual Inside Intelligence event. Our 2009 piece was an introduction to SAS for manufacturers, providing an overview of applicable solution areas, business cases, and case studies. In 2010, we highlighted the launch of the SAS Warranty Management Solution, analyzing both structured and unstructured warranty claims in order to detect suspicious filings and avoid fraud. This was a strong growth area for SAS in 2010, with new sales in the risk and fraud offerings up 123% and 39% in AP and EMEA, respectively.

SAS quoted some recent research from their user forum in Slovakia. They asked respondents: "If you could cheat and not get caught, would you?" to which 95% of respondents answered "yes". This is quite an astounding result, and one which is difficult to believe would be replicated everywhere in the world, but it does give a window into the scale of opportunity available to manufacturers that take warranty management seriously. There are millions of dollars to be saved through improved warranty management that should not be neglected due to seemingly prohibitive IT costs. SAS Warranty Management has the power to make a real and substantial positive impact on the manufacturer's bottom line.

Into the Future - Social Media Analytics

IDC Manufacturing Insights has been keeping a close eye on developments in the social media sphere. Among other things, it is creating its own ".com" bubble, providing new ways and means for consumers to communicate about, evaluate, and purchase products. This is particularly important for manufacturers that are heavily reliant on sales of consumer items – autos, consumer packaged goods, and electronics, among others. There are many IT vendors that currently provide social media analytics tools. However, with the experience, knowledge, and skills that SAS possesses, IDC Manufacturing Insights believes the SAS Social Media Analytics offering is one of the more comprehensive presently available.

According to a recent survey conducted by SAS, the attitude towards social media in organizations has shifted quickly away from the negative, which were predominantly due to the perceived unknowns associated with this new channel, towards greater acceptance, mainly driven by the realization of social media's potential power.

Attitudes towards social media, **the pull**:

- 69% of respondents said: "The use of social media by our organization will grow significantly."

- 57% of respondents said: "Interest in utilizing social media is growing rapidly within our organization."
- 46% of respondents said: "Social media is an important component of our overall marketing strategy."
- 42% of respondents said: "Using social media is integral to our overall company goals and strategy."

Attitudes towards social media, **the push:**

- 61% of respondents said: "Our organization has a significant learning curve to overcome."
- 50% of respondents said: "Until we can measure social media, it will not be taken seriously."

The SAS Social Media Analytics tool derives a sentiment indication (positive, neutral, negative) from any unstructured text that can be found on any form of social media (Facebook, Twitter, Amazon reviews, blogs, forum posts, etc.) relating to a specific subject (e.g., opinion about a brand, a product, or product attributes). Moreover, it is enhanced by network analysis capabilities, which allows a company to map the structure of the network of people talking about it within the Web 2.0 landscape.

The business applications are endless for manufacturers. For example, a high-tech goods manufacturer can quickly ascertain customer opinion on various attributes of a single product or product line. This can instantly be used to make adjustments to the product according to the consumer's direct needs and wants.

Manufacturing Offering

SAS has devised a number of solutions appealing to different parts of a manufacturing organization; of which the Supply Chain Intelligence Centre is one and will be expanded on briefly below.

When working with manufacturers, SAS aims to bridge the gap between departments, which certainly fits well with recent IDC Manufacturing Insights survey results for Central and Eastern Europe (CEE). CEE manufacturing organizations are moving away from the traditional silo functional culture, towards a collaborative systems thinking approach. Systems thinking assumes that what happens in one area of a business affects all other areas. SAS is well-positioned to bridge the gap between functions by applying business intelligence, although the message to the end user needs to be amended slightly.

Supply Chain Intelligence Center

The Supply Chain Intelligence Center encompasses four key areas of manufacturing.

- **Supply:** Aim to create a smarter supply chain through improved sourcing data quality, analyzing and spending, defining an optimal supplier portfolio and assessing and managing risk.
- **Production:** Aim to improve quality, maximize yield, and reliability through reduction of waste, quality assessment, and support of six-sigma initiatives.
- **Demand:** Aim to boost demand and optimize distribution through accurate forecasts, optimized inventory control throughout the distribution chain, accelerating sales and operational planning (S&OP), and streamlining logistics.
- **Service:** Aim to make the service department profitable by indentifying emerging warranty issues, predicting required resources, identifying suspect claims and fraud, and optimizing service contract pricing.

The Supply Chain Intelligence Center is the consolidation point for all the data from the SAS analytical supply chain application. This consolidation is in the form of key performance indicators (KPIs), dashboards, scorecards, alerts, and predefined reports. The user interface allows for seamless access across an organization's functional areas provided from an executive viewpoint. Under the auspices of the Supply Chain Intelligence Center, tools are then allocated to people according to their relevance for the given role.

Quality

Many western economies already compete globally on quality, a requirement in their competitive mix. In CEE and AP, quality has only recently come to the forefront as a competitive battleground. For many developing economies in these regions, cost was a previous competitive differentiator. However, this is changing rapidly, and these markets now represent a lucrative area of growth for SAS. The SAS Quality Lifecycle Analysis application improves quality by making use of the data already available to the manufacturer, providing data integration, monitoring and alerts, root cause analysis, and performance reporting through interactive dashboards.

Predictive Asset Maintenance

Given the still uncertain atmosphere prevailing in global economies, large-scale investment in new production facilities remains low. Manufacturers need to extend the life of key machinery and optimize assets on the shop floor, while avoiding unnecessary down time. Costs are still the leading concern for manufacturers around the world, and the search for ways to reduce expenses is strenuous. With SAS predictive asset maintenance, manufacturers can reduce their operational costs by reducing unplanned downtime, as well as lowering their labor and material costs.

Demand-Driven Forecasting

Manufacturing as we know it is beginning a slow shift away from a manufacturing-to-forecast approach towards a manufacturing-to-demand philosophy. Consumers live in a fast-paced world where one single product can define a whole new market offering. At the same time, this consumer preference can change very quickly, adding to the demand volatility manufacturers are experiencing today. Demand analytics can help support manufacturers in identifying not only what they should be producing but also where and when. This requires a collaborative and responsive network throughout the organization, and SAS has the ability to provide data integration and analysis across functions. When marketing knows it, the sales force knows it, product development knows it, and the shop floor knows it.

The SAS Demand-Driven Forecasting application does well to support the "new" S&OP process, which is a movement away from mere planning towards a complete collaborative structure. In essence, for this to work, manufacturers need to be able to model instant market feedback in a multiple granular approach. SAS would do well to reiterate to end users the power of social media analytics, as it can drastically shape what is been manufactured, and for whom. The same goes for quality as a competitive keystone, as mentioned above. Instant consumer feedback from social media analytics needs to be filtered through the SAS array of applications. IDC Manufacturing Insights does not feel this capability has been sufficiently communicated to manufacturers as providing a compelling case for end-user BI investment.

Missing the Manufacturing Operations Boat

Some of the SAS applications available to manufacturers have been underlined above. However, SAS has still not made much headway in manufacturing operations, a fact that was touched upon in IDC Manufacturing Insights' 2010 SAS Inside Intelligence report.

IDC Manufacturing Insights global research generally points towards the need for greater visibility and intelligence into manufacturing operations. There are masses of data and information available, so that is certainly not a problem; and many manufacturing execution systems (MES) on the market are more than capable. The problem is turning this mass of data into useful information and analysis that can support critical and timely decision making on the shop floor. SAS has the perfect base to be able to help manufacturers improve their understanding of shop floor activities. However, there has yet to be a specific industry solution from SAS that incorporates the company's wealth of knowledge and experience into action in the operations domain.

Advice to Manufacturers

Manufacturing is increasingly moving towards a single global playing field. It is becoming more difficult for manufacturers to differentiate

between themselves and their competitors as the resources and skills required in production can be sourced from anywhere by anyone.

Manufacturing processes are coming to the forefront of differentiators in a manufacturer's arsenal. BI and analytics solutions are important enablers in creating, analyzing, and sustaining the most efficient processes. The way SAS has designed its solutions in a packaged approach will allow manufacturers to understand the business value and capabilities that come with SAS applications.

Like processes, the decision-making environment is changing among manufacturers. This is driven by the need for adaptable, agile decision making to respond to consumers' increasingly complex demands. Again, this bodes well for SAS, as its applications are constructed specifically for different users in different roles, taking into account their specific business needs.

Challenges manufacturers must overcome in order to fully utilize BI and analytics:

- **Buy-in by top level management.** Process changes often result in a cultural shift in an organization. Management needs to take the lead.
- **Collaboration across functions.** Creating a team for cross-functional analytics will go a long way in avoiding misunderstandings and creating cohesion across functions.
- **There is no one-size-fits-all approach.** Manufacturers need to understand that for analytics and BI to reach their full potential, time must be dedicated to understanding what information needs to be collected from whom and where, and what its final use will be.

LEARN MORE

Related Research

- *Business Strategy: Manufacturing IT Applications Adoption and Development: an IDC Survey* (IDC Manufacturing Insights #MIAS03T, July 2011)
- *Perspective: Considering the SHOMI Vendors in Manufacturers' Mobility Strategies* (IDC Manufacturing Insights #MI229342, July 2011)
- *Business Strategy: Manufacturing Strategic Objectives in Relation to Business Concerns and Drivers in Central and Eastern* (IDC Manufacturing Insights #EMI02T1, June 2011)
- *Business Strategy: Manufacturing IT Budget Trends and Operational Initiatives in Central and Eastern Europe, 2011* (IDC Manufacturing Insights #EMI02T2, June 2011)

- *Perspective: Top Trends in High-Tech/Electronics Manufacturing* (IDC Manufacturing Insights #MI229058, June 2011)
- *Tablet PCs on the Manufacturing Shop Floor: Unleashing the Potential* (IDC Manufacturing Insights #MIOT51T, June 2011)
- *Best Practices: Driving Operations Excellence – Lean Adoption in Thailand* (IDC Manufacturing Insights #AP9397217T, June 2011)
- *Methods and Practices: The Proliferation of Mobility in the Manufacturing Supply Chain – A Use Guide for an Emerging Reality* (IDC Manufacturing Insights #MI228219, May 2011)
- *Business Strategy: ICT Vendor Selection in Western European Consumer Products Manufacturing – An IDC Survey* (IDC Manufacturing Insights #MIVC03T, May 2011)
- *Methods and Practices: Warranty Capabilities Maturity Model* (IDC Manufacturing Insights #MI227896, May 2011)
- *Perspective: Manufacturing in the Czech Republic: Industry Trends and Challenges* (IDC Manufacturing Insights, #CEMA16814, March 2011)
- *Worldwide Manufacturing 2011 Top 10 Predictions* (IDC Manufacturing Insights #MI226362, December 2011)

Copyright Notice

Copyright 2011 IDC Manufacturing Insights. Reproduction without written permission is completely forbidden. External Publication of IDC Manufacturing Insights Information and Data: Any IDC Manufacturing Insights information that is to be used in advertising, press releases, or promotional materials requires prior written approval from the appropriate IDC Manufacturing Insights Vice President. A draft of the proposed document should accompany any such request. IDC Manufacturing Insights reserves the right to deny approval of external usage for any reason.