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YOUR SAS[®] BUSINESS REPORT

THE POWER TO KNOW.

Dear Readers,

It's officially summer -- and let me tell you, we're melting from the heat and humidity here in North Carolina. But as the thermometer rises, so does the pace of activities at SAS.

Do you share our need for speed? See below to find out how SAS and Sun Microsystems recently smashed the competition, setting a new world record for data integration performance.

Also in this issue, Gary Cokins explains how 24/7 customer intelligence feeds performance management success (see "Emerging Trends" below), and SUBWAY, North America's largest restaurant chain, keeps the bottom line fresh and healthy with SAS Enterprise BI Server.

Stay cool, and we'll catch up again in July. Happy trails till then!

A handwritten signature in black ink that reads "Anne-Lindsay Beall".

Anne-Lindsay Beall
Editor, *Your SAS Business Report*

Emerging Trends: Working for the Customer

by Gary Cokins

Our fathers worked for the boss, and when they left the office at 5 o'clock, they left their job worries behind. But today's managers and employees work and worry nearly 24/7 – and probably for someone other than their bosses on the organizational chart. What has caused this shift, and who is this new boss? The answers to these questions are the Internet and the recently empowered customer, respectively. The Internet, with its powerful search engines and near-instant gratification, has irreversibly shifted power from sellers to buyers. And every supplier of products and services is scrambling to become more customer-focused.

Performance management – defined narrowly by most as merely better strategy, budgeting and control – has increasingly been recognized as a much broader concept. Performance management runs end to end as the complete, closed-loop planning, design, marketing, sales and customer order-fulfillment cycle. One of the critical components in the portfolio of performance management methodologies is customer relationship management (CRM). Why is customer intelligence now so critical to performance management?

A shift of power from sellers to buyers

Organizations have realized they must be increasingly focused on customers because:

1. They need higher customer retention. It is relatively more expensive to acquire a new customer than to take the steps needed to retain an existing one.
2. The source of competitive advantage has shifted away from making and delivering commoditized products and toward value-added service differentiation for customers and prospects.
3. Microsegmenting and improved targeting of customers helps businesses focus on their customers' unique preferences, a departure from traditional, spray-and-pray mass advertising and selling that have produced very little return.

These forces should not keep organizations from attempting to acquire new customers. But companies should balance their use of financial and manpower resources between growing sales to higher-potential, long-term existing customers and acquiring new customers who share the same characteristics as existing customers projected to deliver higher profits in the long term.

The Internet has shifted power from suppliers to buyers because shoppers can instantly view comparative pricing from a broad range of vendors while collecting more information about products and service lines.

Just imagine the shopping experience of a forgetful husband the evening before his 10th wedding anniversary. When he realizes on his drive home from work that he has forgotten a gift, he types – or even speaks – these five words into a search engine on his Internet-equipped cell phone: “10th wedding anniversary wife gift.” In less than a second, his phone provides a list of gifts other husbands have purchased, ranked in order of popularity. With a click, he can view price ranges. And once he further specifies his price range, he can locate nearby stores complete with driving directions, and he can even immediately phone each of those stores to talk to a salesperson. If he had been fortunate enough to remember his anniversary only a few days earlier, he could have been directed to Web sites where he could purchase the item at a lower-than-retail price and had the gift wrapped and shipped.

You can imagine dozens of different purchasing experiences, and not just for consumers in households but also for purchasing agents in the virtual business-to-business marketplace. Buyers are no longer restricted to suppliers from the local geography; now they can order globally.

How can suppliers gain a competitive edge?

Some suppliers overreact by becoming customer-obsessed when they attempt to transform themselves away from developing innovative new products and services and motivating their sales forces to sell them. Most eventually realize that they should work backward by first understanding the unique buyer preferences of the types of customers and prospects they want to serve. There is a difference between being customer-focused and customer-obsessed. The latter approach may cast too wide a net and capture savvy, high-maintenance, price-driven, non-loyal buyers who ultimately yield little profit margin in the long term.

As a supplier increasingly micro-segments its customers and sales prospects, the company will need more accurate intelligence on the current and future potential profitability of its products, service lines, channels and customers. The idea here is not just to know which types of customers to grow or acquire and which not to, but also to know how much to spend growing and acquiring the desired types. If you bribe loyal customers and prospects with unnecessary, deep discounts and excessively expensive differentiated services, or if you fall short with offerings or services to non-loyal customers and prospects, thus risking their abandonment, then you destroy shareholder wealth. The spending and investment of sales and marketing are ultimately a financial optimization problem. This is why an effective managerial accounting system is another one of the key components of the performance management portfolio of methodologies.

A single view of the customer

Placing aside the skills and capabilities needed to measure customer value and derive a return-on-customer-value score, many other tactics are available to exploit customer intelligence data. For example, sales and marketing campaigns can become continuous, closed-loop learning cycles. Based on known patterns of psychodemographic customer data (for example, teens' television viewing preferences), the recency-frequency-monetary spend history (how much, how recently and how often money was spent) and predictive response models, companies can customize offers, deals and discounts to microsegments and ultimately to individuals. Then, based on the actual-versus-expected response behavior, companies can refine future marketing campaigns.

To create greater shareholder wealth, a company must analyze its customer portfolio in new ways to discover new, profitable revenue growth opportunities. Many organizations have difficulty accessing, consolidating and analyzing the necessary customer data that exists across their various business systems. This issue is exacerbated over time as the number of systems and discrete customer databases expands. Becoming customer-centric requires a view of data that involves no walls. For example, a bank should ideally consolidate its information onto a single decision-making platform instead of keeping its credit card data in one silo, its banking account data in another and its mortgage data in yet another. Companies must eventually create a "single view" of the customer, a view that consolidates relevant and accurate data related to a single customer across different organizations, databases and operational systems.

Customer intelligence is one of the critical components in the portfolio of performance management methodologies for this very reason. When organizations combine customer analytics with the other components of the performance management portfolio, such as balanced scorecards, demand planning/forecasting, marketing automation and predictive resource capacity management, they can realize the full vision of performance management.

SUBWAY® Stays Fresh and Healthy with SAS

At the Retail Systems 2006 Conference & Exposition in Chicago, it was announced that SUBWAY restaurants, North America's largest restaurant chain, is using SAS Business Intelligence (BI) Server to assess costs and analyze store performance.

SUBWAY restaurants, with more than 25,000 locations in 83 countries, chose SAS because of its proven reputation for working with the extraordinarily large volumes of data generated in the restaurant business.

Improving sales, profitability

"We have data streaming in from thousands of stores across North America and many distributors and suppliers," says Thomas J. Coba, Chief Operating Officer for the SUBWAY brand.

"All that data was becoming cumbersome and difficult to manage. We needed to monitor in-network buying, customer behavior and supplier behavior," continues Coba. "And, we needed to better understand areas for improvements and cost reductions. Now that the SAS implementation is up and running, we're already experiencing better visibility into our supply chain and realizing savings."

Coba says SAS allows SUBWAY restaurants to achieve a strategic goal: providing the tools and systems to improve franchisee sales and profitability.

Partnering for success

SAS was introduced to the SUBWAY chain using the Supply Information Management System (SIMS), a product developed for Quick Service Restaurants (QSR) by SAS Partner, Oak Brook Associates Inc.

Says Thys Van Hout, founder and CEO of Oak Brook Associates: "I admire Tom Coba and his team for their commitment to help build the business success of entrepreneurs operating SUBWAY restaurants and look forward to working with them. I could not operate my business, nor offer the SIMS product designed for the QSR industry without the 'power to know' of SAS."

In addition to SUBWAY restaurants, SAS customers include hundreds of leading retailers worldwide, such as:

- 1-800-FLOWERS.COM
- Brooks Brothers
- Bakers Footwear
- Burger King
- Carrefour
- Casino
- Casual Male
- The Children's Place
- Circuit City
- Fakta
- Federated Department Stores

- Karstadt
- Kohl's
- Li & Fung Retailing Group
- The Limited
- Lowe's Companies
- Luxottica Retail
- Marks & Spencer
- Newport News
- Northern Tool & Equipment
- Office Depot
- Sainsbury's
- Sport Chalet
- Staples
- Tesco
- Too Inc.
- Waitrose Limited
- Williams-Sonoma

Where is Your Money Going?

What are the true costs of implementing and maintaining multivendor BI solutions? Consider these noteworthy conclusions from a preliminary research report by a team of students enrolled in the MBA program of Saïd Business School at the University of Oxford in England:

- The ongoing costs for maintaining a BI solution can be just as high as, or higher than, the actual deployment costs.
- Complete or end-to-end BI platforms show a far lower total cost of ownership than traditional query-and-reporting vendors or ERP-based products.
- Organizations that implement multivendor products to complement their existing solutions show even higher costs for their finished BI architectures.

The results are based on a vendor-neutral method that evaluates BI platforms based on total cost of ownership. According to this new evaluation method, an enterprise business intelligence platform (EBIP) includes a suite of data warehousing, business intelligence, analytics and performance management software supported by an integrated metadata capability.

“Many organizations today focus on the acquisition costs but neglect to consider major expenses for designing, developing, testing, maintaining and running BI applications,” explains Chris Chapman, Ph.D., the supervising professor of the strategic consulting project at Saïd Business School. “This study on the total cost of ownership reflects exactly this: in their test sample, incomplete EBIPs have significantly higher total costs of ownership than true EBIPs.”

Study recognizes importance of EBIPs

As organizations realize the need to make better strategic and operational decisions in a competitive and regulated environment – and address the challenges of Sarbanes-Oxley and Basel II – the need for standard BI systems increases. Performance, standardization pressures and costs continue to influence decisions in the BI vendor selection process. However, measuring costs and evaluating the success of IT investments has proven to be particularly challenging.

The Saïd project group addressed this issue with its recent study, providing a methodology for evaluating different levels of integration and comparing incomplete EBIPs with respect to functionality and total cost of ownership. The students contacted more than 140 companies in Europe that were deploying at least one BI solution from Business Objects, Cognos, SAP or SAS.

Results validate SAS® solutions

“The study validates that an end-to-end and fully integrated BI platform leads to a far lower total cost of ownership,” says Tonny Dierckx, Director of Intelligence Architecture at SAS. “Our BI platform is holistic by design, not by acquisition, and this translates into much lower deployment and maintenance costs. For example, by integrating technical and business metadata, SAS eliminates significant costs that would otherwise incur when organizations are forced to integrate metadata across multiple product components. The new methodology helps organizations separate the facts from the hype.”

SAS customers agree with the findings, too. “With SAS, we can use one technology for the entire project,” says Luc Billion, ICT Manager in the Public Health, Safety of the Food Chain and

Environment Division of the Federal Public Service, Belgium. “It precludes the need to insert other software packages. If we need new functions, SAS offers a solution, as part of a concept going beyond technology to support functionality. That also contributes to cost efficiency, since we only have to master one technology.”

State Auto Selects SAS Enterprise BI Server

Providing superior insurance products at competitive prices and quality customer service have been hallmarks of State Auto since its beginnings in 1921. Now, the insurer is turning to SAS to provide its primary analytic and business intelligence (BI) solutions.

Using SAS analytic tools and the SAS Enterprise BI Server component, State Auto will fine-tune its ability to utilize company data as a corporate asset, leading to greater efficiency and helping control costs.

Building on proven success

Selected this year by *Forbes* magazine as the Best Managed Company in the insurance industry, State Auto focuses solely on serving independent agency partners, whose trust the company must continue to earn through sound pricing, stellar customer service and smooth business relations.

With SAS, State Auto plans to use data-driven analytics and key performance indicators to build upon its proven success. Executives aspire to provide continuous improvement in their ability to use corporate and third-party data for the pricing process, customer and analytic research programs, sound daily management of results, and increased data management efficiency. Also, they need powerful analytics within an organizational dashboard to help employees see quickly how their roles contribute to the company's overall goals.

"SAS is generally known to have among the best analytics available," says Kim Bailey, Vice President of Information Resources Division at State Auto. "Now, SAS' leadership extends to the business intelligence environment with SAS Enterprise BI Server. This solution addresses our goals by giving us the ability use common data access tools to work with our data assets from an analytics and a business intelligence perspective. We believe we can harness the prowess of SAS analytics on top of a common, easy-to-use business intelligence foundation."

Reducing costs, increasing customer retention

State Auto takes pride in doing business with steadfast integrity and appreciates the rock-solid reputation that SAS strives to uphold through its financial stability and commitment to its customers. This is best demonstrated through SAS' generous investment in research and development.

"Through our research, we heard very positive feedback from a variety of SAS customers and from peers in our industry," says Bailey. "Our staff is impressed with the skills and abilities, integrity, and work ethic of the SAS employees we've partnered with. We are confident that our implementation needs are well addressed."

Through the comprehensive business intelligence solution offered by SAS, State Auto expects to reduce total ownership costs by improving the ease of accessing and reviewing results throughout the company. Company executives expect to utilize the power of SAS to enhance the use of data as a strategic asset. Also, they expect to better serve the company's independent agencies and increase customer retention by developing a more comprehensive view of the customer experience.

“State Auto’s goal is to use SAS to consistently improve upon our already demonstrated excellent business results,” Bailey explains. “The valuable intelligence that SAS Enterprise BI Server provides will help us achieve our company data analytic initiatives. Eventually, we also hope to share this data with our agency partners to help them obtain better insight into their results.”

End-to-end BI

SAS differentiates itself from conventional BI vendors by providing unmatched technology and expertise in advanced analytics, data management and tailored solutions for specific industries, such as banking, insurance, life sciences, manufacturing and retail.

SAS offers a fast, simple and complete solution that integrates analytics to supply insight and hindsight through historical reports while forecasting future outcomes, providing greater insight and foresight. With these capabilities, SAS gives users at all levels immediate access to cleansed and reliable data through targeted user interfaces that match the skill level of any individual user.

New DI Performance World Record

SAS and Sun Microsystems Inc., smashed the competition, setting a new world-record benchmark for the extraction, transformation and loading (ETL) of massive volumes of data into a data warehouse.

The results of these benchmarks revealed that the powerful SAS Enterprise Data Integration Server on the Sun SPARC processor can outperform any other vendor's tools by more than **250 percent** in throughput testing, based on published results.

The test of SAS Enterprise Data Integration Server for ETL involved the throughput of 3.9 terabyte (trillion bytes) in one hour, representing 81.2 GB/Hour/CPU – a world record based on published benchmarks. The test was performed using a Sun Microsystems Sun Fire E25K domainable server running UltraSPARC IV+ processors (dual-core CPU), the Solaris 10 operating system and Sun StorEdge SAM-FS/QFS shared file system.

Flexible, reliable, agile

SAS' capabilities for ETL are a key component of SAS Data Integration, which offers a comprehensive, universal data integration solution that includes technologies for connectivity and metadata, data cleansing and enrichment, ETL, migration and synchronization, data federation and master data management. These capabilities provide organizations with the flexibility, reliability and agility to respond quickly to new data integration requirements, consolidate vendors, standardize on one integration solution for both operational and business intelligence applications, and reduce the overall cost of data integration.

"Today's organizations are struggling with ever-increasing amounts of data that cannot be extracted and loaded using the ETL technologies that have served them well in the past. As a result, many organizations are looking for ways to speed the ETL process, including buying more powerful hardware at great cost," says Allan Russell, Senior Vice President of Strategy for SAS International.

"This second benchmark on Sun hardware platforms offers an appealing alternative by demonstrating that SAS can prolong the life of an enterprise's hardware now and also minimize the upgrades required in the future," says Russell. "If companies are considering addressing poor performance through hardware upgrades, this benchmark clearly shows that SAS has a lot to offer in keeping investment costs to the minimum."

Wachovia Grows Customer Satisfaction, Loyalty

Heightened competition in the financial services industry is driving Wachovia Corp. and other institutions to become more customer-focused. With help from SAS, Wachovia – one of the largest providers of financial services to retail, brokerage and corporate customers – has achieved increased customer loyalty and profitability since placing an emphasis on customer satisfaction in 1999.

Wachovia Bank uses SAS to explore and define customer equity – all in an effort to understand the true, long-term value of happy customers. Wachovia now surpasses industry peers in customer satisfaction and customer loyalty rankings.

Driving customer loyalty

Using SAS software for analysis and reporting, Wachovia rigorously measures customer loyalty and uses that information to make business decisions. The bank harnesses the power of SAS to analyze survey results alongside historical customer data on Wachovia's 13 million customers. With these results, the bank can understand what loyalty means to Wachovia and what drivers affect customer loyalty.

“Over the years, customer loyalty has become a more important measurement than customer satisfaction,” says Kelly Campbell, Senior Vice President and Director of Customer Satisfaction and Loyalty Performance Measurement and Improvement at Wachovia Bank. “This is because loyal customers stay with us longer, buy more products and services, create good word-of-mouth referrals, and reduce customer acquisition and servicing costs. We see customer loyalty as a continuum where you move from being not loyal to being completely loyal, or somewhere in between. We've used SAS to better define actionable areas on that loyalty curve to target particular customers.”

Meeting customer needs

With SAS, Wachovia provides customer analysis for each unique channel and banking group – including wholesale banking, Wachovia Direct and the e-commerce division. The intelligence derived from this analysis helps Wachovia determine how to spend its marketing dollars to address a customer's unique needs and provide more targeted customer service.

Wachovia consistently outscores its peers in the esteemed Customer Satisfaction Index compiled annually by the University of Michigan. And according to Gallup surveys, more than half of Wachovia's customers would gladly recommend the bank to a friend.

Wachovia's next step in its customer intelligence initiative is to define customer equity – a lifetime measurement of how much value each customer brings to the bank, and more importantly, how Wachovia can improve each customer's value. To accomplish this plan, Wachovia is depending on SAS to assist in the complex analysis and data management.

Increasing customers' value

“Executives want to know, if we increase a customer's value, how much extra profit that means to the bank every year,” says Dan Thorpe, Senior Vice President and Statistics and Modeling Director of Wachovia's Customer Analysis Research and Targeting (CART) Group. “We're using SAS to really understand and model our customer's balance history, their revenues, their profits, the number of products and their tenure. We're trying to roll it all up into a measurement called

customer equity, which requires a very sophisticated analytical depth that plays in to why we're using SAS."

"With nearly 30 years of serving the financial services industry, SAS combines superior analytics with award-winning data management capabilities to ensure that an organization's customer relationships, marketing efforts and corporate strategies achieve optimal results," says Ellen Joyner, Global Industry Strategist for Financial Services at SAS.

F2006: World's Largest Forecasting Conference

Whether you're making automobiles, selling swimwear or recruiting college students, the ability to accurately predict demand for products or services represents an increasingly valuable tool for businesses, schools and government organizations.

Issues facing practitioners in the rapidly expanding field of forecasting were the subject of SAS' inaugural [F2006 Business Forecasting Conference](#), held June 5 and 6 at SAS world headquarters in Cary, NC.

The gathering brought together some of the most respected forecasting experts in the world, with 334 registered attendees from 35 states, five countries and 120 different business, government and academic organizations. SAS hosted this event – the world's largest forecasting conference of the year – to help organizations analyze and streamline their forecasting processes, and improve forecasting results.

"F2006 improved attendees' critical eye for both the statistical and the process side of forecasting," says Mike Gilliland, Product Marketing Manager at SAS. "The conference takeaways were powerful. Attendees learned which techniques and processes work best and returned to their offices with new ideas for more efficiently achieving objectives."

Sharing best practices

Networking opportunities abounded for participants, who included analysts, managers, directors and business executives, as well as scientists and researchers with Ph.D.s. Practitioners appreciated exposure to academic theory and the practical examples and applications of the latest research. Academics became more familiar with the real-life issues facing today's forecasting practitioners.

"The conference provided broad opportunities for idea-sharing," adds Gilliland. "For example, the call center staffing solution at a financial services institution could be applied directly to an airline's reservation center or a retailer's store staffing problem. The new product forecasting approach used at Warner Home Video can be tried by apparel or automotive manufacturers, electronics retailers or government agencies."

Forecasting experts led discussions of the latest software and statistical techniques, although many sessions were geared to people who work in nontechnical areas and focused on the forecasting process.

Keynote presentations

Among the outstanding presentations was a keynote address by Paul Goodwin, Ph.D., from the University of Bath (UK), who spoke on "Combining Management Judgment with Statistical Forecasts for Improved Accuracy." He described how statistical methods and expert management judgment can bring complementary benefits to the forecasting process. However, such judgment can be subject to both inconsistencies and biases. He then demonstrated a range of methods designed to allow judgment to play an effective role when used in combination with statistical forecasts.

In another keynote address, Sven Crone, Lancaster University (UK), explained the best ways to incorporate the effects of external events into demand forecasts. He noted that management judgment must play a major role when the event history has not been properly recorded or the expected future event is not thought to be similar to those seen in the past. He concluded with a discussion of software enhancements that could help company forecasters improve their estimates of the impact of events.

Hands-on exhibits

The F2006 exhibit hall was full and busy. IBM and SAS staffed a unique exhibit where attendees took a “test drive” of SAS® Forecast Server on an IBM® p5™ 550 server. Attendees were invited to send their company data in advance of the conference and then view it running through SAS Forecast Server. The test drive enabled attendees to observe the functionality and speed of the SAS software and IBM hardware combination, and it let them assess the level of forecast accuracy they were likely to achieve.

“The Forecast Sever test drive was a big hit,” says Jim Ferris, who leads the SAS Forecasting Practice. “We conducted test drives with 26 attendees – many who were from large global corporations. Attendees appreciated the chance for hands-on use of the solution accompanied by those with technical and business expertise. Based on attendee response, SAS and IBM plan to offer this exhibit in the future.”

Both major forecasting professional organizations – the Institute of Business Forecasting and the International Institute of Forecasters – hosted popular exhibits at the conference. Attendees could view each organization’s publications and learn about the conferences, training and certification programs they offer.

Many took advantage of the on-site forecasting training sessions following the conference. SAS is already planning its second annual business forecasting conference, F2007, to be held June 25-26, 2007, in Cary.

SAS® Forecast Server

SAS has been the recognized leader in forecasting software for more than a quarter-century, with more than 4,000 unique customers licensing SAS forecasting products worldwide.

In November 2005, SAS released SAS Forecast Server, which added the new SAS Forecast Studio GUI to the SAS High-Performance Forecasting engine. [SAS Forecast Server](#) automatically chooses the best forecasting model, optimizes the model parameters and produces the forecasts – even accounting for seasonality and intermittent data, both of which are common in many industries.

For example, graphical displays offer retailers an understanding of the effects of holidays, marketing events, sales promotions and unexpected events such as weather, improving the ability to plan effective sales promotions and marketing events. Already a favorite with users, SAS Forecast Server was named one of the "Trend-Setting Products of the Year for 2005" by *KMWorld* magazine and was also selected the "2005 Communications Solutions Product of the Year" by editors of Technology Marketing Corp.'s *Communications Solutions* magazine for excellence in technological advancement.

EVENTS:

Web Seminar Series: Finding the Flaws in Forecasting

June 28, July 25

This three-part series will show you how to control the forecasting process, eliminate waste and get better results with less effort. [Read more.](#)

SAS Education: New Analytics Lecture Series

Live Web, July – Oct.

Don't miss this 13-week analytics lecture series featuring analytical thought leaders exploring the latest trends and issues in the industry. [Read more.](#)

M2006 Data Mining Technology Conference

Las Vegas, Oct. 23-24

Join your colleagues and the most sought-after experts in data mining at M2006. [Register online now!](#)

Webcast: Business Performance Management Revealed

On-demand

Tune in to find out what other companies have learned through their experience with BPM implementation. [Read more.](#)