

# Empowering Grocers:

## *Using Retail Analytics To Engage Customers*

How Shopper Insights Cement Long-Term  
Loyalty Through Optimization and Forecasting

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“In our experience we have seen somewhere between 5% and 10% increases in same-store sales rates for supermarket retailers that become more shopper-centered.”

- **Jim Hertel**, Managing Partner, Willard Bishop, LLC

Grocers are faced with unique challenges unlike other retail segments, and these challenges are mounting. Starting with numerous in-store departments, fresh food management, a mountain of SKUs and UPCs and the need for a highly optimized workforce, grocers are in a unique position in the retail marketplace. Pile on commodity pricing pressures, increased

competition, data overload and changing customer demands — and supermarket retailers need to find a new way to build trusting relationships with customers and effectively engage them via their channels of choice. Business process optimization, fortified with insight-driven analytics, is the answer.

The results of insight-driven analytics implemented in the supermarket industry are impressive. “In our experience we have seen somewhere between 5% and 10% increases in same-store sales rates for supermarket retailers

that become more shopper-centered,” noted Jim Hertel, Managing Partner, Willard Bishop LLC.

Economic downturns and volatility — along with ongoing financial pressures around unemployment, increasing gas prices and a real estate market struggling to rebound — have highlighted the need for grocery merchants to uncover better ways to do business. Although some retailers and regions are faring better than others today, many are still faced with consumers who continue to function with a “depression-esque” shopping outlook, according to IHL Group in its 2011 North American Supermarket Report. This shopper attitude has resulted in an uptick in coupon use, an increased interest in private brands, growth in the use of shopping lists and households turning to more home cooking with basic ingredients. Meanwhile, consumers in the top 20% of income levels have had buying behaviors that indicate they have exited the recession.

“The combination of cheaper computer power and great analytical tools that can leverage big data is allowing the grocery industry to quickly become more customer-centric. Retailers can leap forward by regularly making customer data-driven decisions.”

- **Wanda Shive**, SAS

Supermarket retailers also are facing increased competition from traditionally non-supermarket merchants.

“We are talking about a lot of folks who were used to competing only against other supermarkets,” said Hertel. “Now everybody is getting into the food business, including super centers, dollar stores, chain drug stores and others.

The result is that the food dollar is now more fragmented; it’s being spent in a lot of different places.”

Many of today’s grocers also are part of a multigenerational family commitment to the business and harken back to the days when store owners knew each customer by name. Today and in the future, successful supermarket retailers are embracing a new age of data analytics and customer insight. The winning result may look somewhat like the industry

when it began — with the use of advanced technology, grocers will be able to engage with individual customers and cement long-term loyalty.

“Back in the early days of launching frequent shopper programs in grocery, I would have given my right arm to have the solutions and tools that we now have at our disposal,” said Wanda Shive, Retail Product Manager for SAS. “The combination of cheaper computer power and great analytical tools that can leverage big data is allowing the grocery industry to quickly become more customer-centric. Retailers can leap forward by regularly making



“You really need to augment the POS information with third-party data so you have a better feel for what the consumer looks like beyond what they are doing in your store.”

- **Jim Hertel**, Willard Bishop LLC

customer data-driven decisions.” Shive worked for Food Lion and consulted with many grocers across the U.S. and Europe before joining SAS. “Even though we were focused on customer analytics back in the early 2000s, we really didn’t have the solution set available that we have today — tools that make sense of the massive amounts of data and distribute that knowledge to decision makers across the retail organization.”

To successfully compete against the likes of Wal-Mart, which may be selling food products for 20% less, “supermarket retailers absolutely must distinguish themselves,” Hertel added. “They must find non-price-based reasons to be the preferred place to shop,” including offering higher-quality and unique items and better customer service. To that end, a number of grocers are refocusing on new strategies around marketing and promotion, embracing new technologies in order to update tried-and-true campaigns.

## The Pitfalls Of Current Data Collection

The first step to achieving those lofty goals already is in place in most grocery stores: well-established loyalty programs collect some shopper data and even more is collected at the POS. “Since 1993 grocers have been collecting information from frequent shopping programs,” noted Shive.

The problem is: “Supermarkets have not invested in the means to really make sense out of all that data,” noted Hertel. Often the data is delivered to and used solely by a company’s marketing department. “The data is so compartmentalized and siloed that it is difficult to develop a solid picture of what is going on in the total business,” he continued. “A group of people who could make very good use of that data — the merchants — quite frequently have the least access to that information within the organization.”

Additionally, that single source of data is not enough to present a complete picture

“Location-based information is fantastic and represents the most important single feature of mobile.”

- **Richard Hastings**, Global Hunter Securities, LLC

of the customer and implement effective strategies across all parts of the business, including assortment planning, pricing, marketing and overall demand forecasting. “You really need to augment the POS information with third-party data so you have a better feel for what the consumer looks like beyond what they are doing in your store,” Shive added.

For example, she explained: “Measurements for decision making may be different for pricing versus assortment or space planning.”



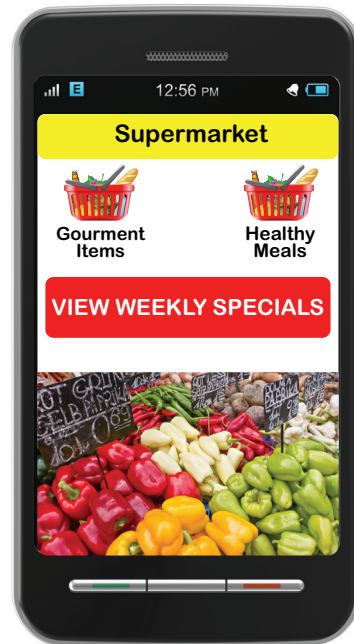
## Understanding The Benefits Of Mobile And Social

Grocers also must embrace the newest channels — mobile technology and social media. More than one third of all U.S. adults already own smartphones as of May 2011, according to The Pew Internet Project, and are using them to compare prices, research products and locate stores. In order to reach this rapidly expanding audience, supermarket retailers can access shopper insights to develop and implement mobile web sites and offer customized coupons and promotions to their best customers.

With customer insight information in hand, grocers can reach out to shoppers at the most opportune time and place. “Location-based information is fantastic and represents the most important single feature of mobile,” noted Richard Hastings, Macro and Consumer Strategist for Global Hunter Securities, LLC. “Mobile is extremely powerful and transparent.”

Social media may still be in its infancy in the grocery business, Hastings continued. "It is a smaller layer of the data cake right now but has the ability, eventually, to bridge some interesting layers into something of greater value." To get there, he said, "We have to evolve from 'like' to richer and more detailed data attributes about behavior — transactional and intentional behaviors."

With this complex selling and marketing environment in perspective, supermarket retailers must make the most of shopper insights and analytics. This eBook will outline the benefits offered by insights and analytics in four key areas for grocers:



- I. Assortment Optimization: A Grocer's Best First Step
- II. Campaign Planning, Marketing And Promotion Get A Technology Boost
- III. Pricing Optimization Meets Today's Challenges
- IV. Demand Forecasting Supports Optimization Initiatives

65% of North American retailers will have implemented assortment optimization by the end of 2011.

- RSR Research, "Twenty-First Century Merchandising: Benchmark 2011"

## I. Assortment Optimization: A Grocer's Best First Step

Assortment, inventory and space optimization can deliver impressive results for supermarket retailers in today's challenging economy. "Getting space and assortment right in stores can result in 5% to 7% gains in same-store sales," said Hertel, "and retailers can start to see real movement in 60 to 90 days."

Most retailers are embracing these strategies, with 65% of North American retailers (including supermarket and other) having already implemented (47%) assortment optimization or are planning to implement (18%) by the end of 2011, according to RSR Research in the report "Twenty-First Century Merchandising: Benchmark 2011." In fact, 100% of retailers plan to have assortment optimization implemented at some point, with 35% reporting plans to implement in more than one year, and 0% reporting "No Plans" to implement.

Using automated assortment optimization, retailers can gain insights into customer loyalty and preferences in order to determine the best assortment in each category, down to the SKU. Combined with Retail Space Management, grocers are able to improve the use of selling space and enhance inventory productivity, while more efficiently mapping assortments to planograms. These initiatives can be a retailer's best first step. SAS is innovating in this area, by providing a service to grocers to begin realizing results and the ability to grow.

A number of leading supermarket retailers already are benefitting from implementations of assortment and space optimization. One leading grocer is revamping its brand and leveraging advanced analytics from SAS as a key enabler to this strategy. "We chose SAS because of their strong commitment to retail and analytical excellence," said the company's CIO. "The partnership will enhance our customers' shopping experience with the implementation of SAS technology and resources."





*SOK, part of Finnish grocery chain S Group, is pushing the limits of traditional customer analytics farther in space, price and assortment. SOK is now turning to SAS Retail Forecasting and SAS Regular Price Optimization to extend this strategy.*

A Finnish retail cooperative, S Group, began with a commitment to analytics in 2004 with SAS Space Optimizer. In early 2011, as a SAS development partner in Space, they rolled out re-platformed Space Optimization solution to all stores in S Group Trade Chain Management (grocery business unit). In Spring of 2011 SOK Trade Chain Management grocery began implementation of Retail Forecasting and Regular Price Optimization with plans to go live in fall of 2011. A pilot was completed in 2011 in conjunction with SOK Human Resources for Workforce Optimization for the petro stores

and restaurants using SAS forecasting tools and business intelligence software. Design work and project planning for appropriate rollout continues between SAS and SOK.

The S Group consists of 22 regional cooperatives and the SOK Corporation, which is owned by the cooperatives. The S Group has more than 1,600 outlets (\$15 billion U.S.). Based in Helsinki, Finland, the S Group provides services for a variety of businesses including supermarkets, fuel and service station stores, department and specialty stores, tourism and hospitality businesses and retail banking services. The S Group's purpose is to provide services and benefits for customer-owners in Finland, the Baltic States and Russia. Cooperative memberships total nearly 2.0 million – 44% of the grocery market, and S Group employs more than 39,000 employees.

S Group has had the foresight to implement advanced analytics to optimize their results since 2004. And, while a 44% grocery market share is impressive, SOK is not resting on this

lead. SOK executives continue to ask questions such as: As a cooperative, how can we better serve our customer-owners? What do we have to do to insure our leadership position in our focus markets?

“We are concerned about sustaining growth three to five years out through traditional means (such as new stores and formats, growing number of products including traditional supply chain operations, etc.),” said Jukka Ojapelto, Vice President, SOK Grocery Trade Chain Management. “Our vision for continuing S-Group success is to develop innovative methods made possible by predictive analytics and optimization technologies.”

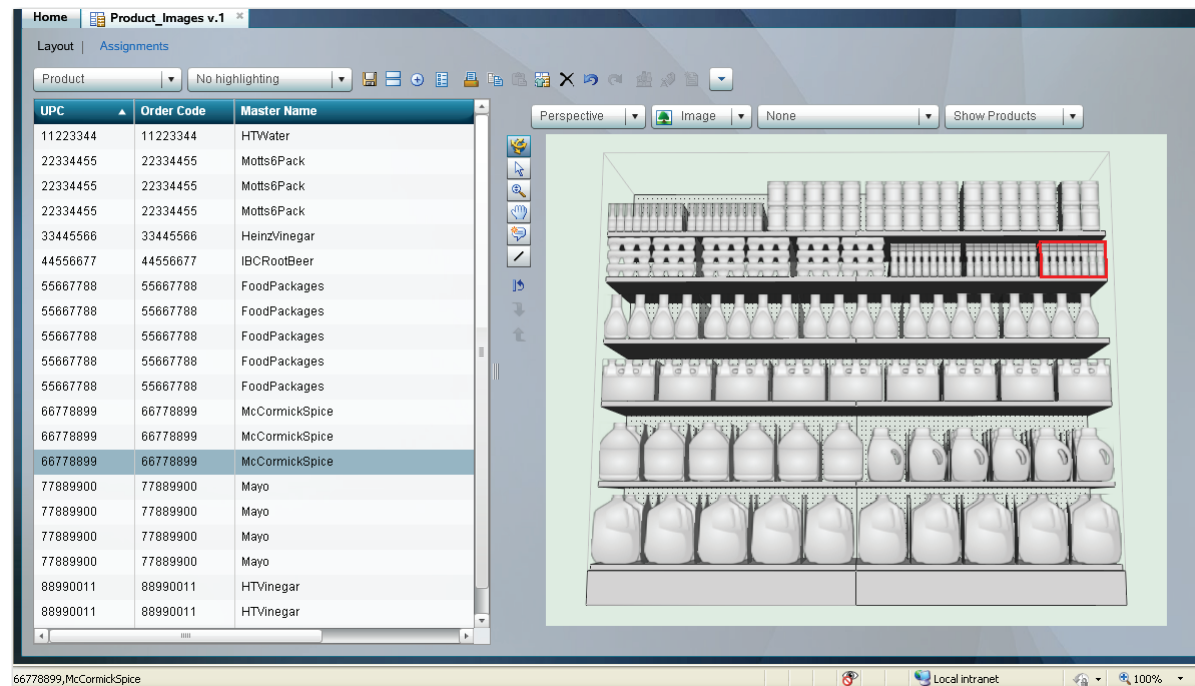
The successful cooperative has enabled products space localization with SAS Space Optimization. “Because SAS Space Optimization is based on store-specific sales, the system allows us to allocate more space to the products our local customers want in each region,” said Irja Simola, CIO, Grocery Trade Chain Management.

Today, SOK is expanding what it refers to as its “Value Chain” Optimization strategy. The merchant is pushing the limits of traditional customer analytics farther in each key area — space, price and assortment. SOK is now turning to SAS Retail Forecasting and SAS Regular Price Optimization to extend this strategy. These capabilities will allow S Group to achieve a number of goals including:

- 100% product availability on-shelf
- Affordable consumer pricing while remaining profitable
- Reduced out-of-stocks and overstocks
- Availability of shared sales forecasts to trading partners
- Improved margins at store and product levels
- Localized inventory and pricing for individual markets
- Greater transparency across the “value chain”

SAS currently is working with another grocery retailer using assortment optimization to improve store-level efficiency. “When you look at the individual customer’s perspective versus the sheer volume on the shelf it makes a big difference” in determining store assortments, explained Shive. For this particular client, SAS is leveraging customer purchase history and integrating it with assortment optimization.

As grocers continue to battle their traditional supermarket competitors — as well as big box stores, convenience stores, discount retailers and others — assortment optimization will play a key role in tightening margins, improving customer service and loyalty, and boosting the bottom line.



*As many as 65% of North American retailers (including supermarket and other) having already implemented assortment optimization or are planning to implement by the end of 2011, according to RSR Research in the report “Twenty-First Century Merchandising: Benchmark 2011.”*

“Retailers can save 2% to 3% of sales and gross profit dollars by using shopper analytics.”

- Jim Hertel, Willard Bishop LLC

## II. Campaign Planning, Marketing And Promotion Get A Technology Boost

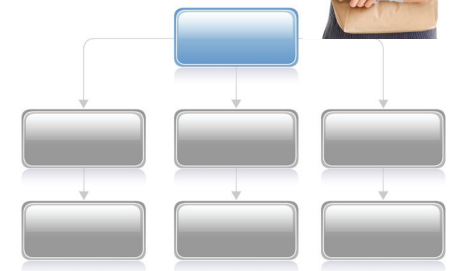
Marketing in the grocery industry will continue to present challenges and obstacles. Mobile technology and social media are bringing new opportunities into the mix. At the same time, many grocers still rely on printed weekly circulars to deliver coupons and product information to a large customer base. But, as the current generation ages and Gen Y becomes the primary target group, the printed circular may eventually become obsolete.

“Ultimately the printed circular will disappear and be replaced with a digital version,” noted Hertel, “but the reality is, whether delivered electronically or via paper, you still need to make sure the products you’re promoting and the prices are appealing to your best shoppers, to motivate trips and drive incremental sales.” So in the long run, he explained, “think about the business need versus the delivery mechanism.”

So, whether digital or printed, weekly grocery promotions must use shopper data to create benchmarks for and evaluate marketing programs to understand their customers. Using SAS Customer Intelligence and Marketing Resource Management, SAS is able to help retailers understand customers and coordinate efforts in order to reduce costs and time to market and, in turn, strengthen brand value.

Marketing Automation helps to improve campaign ROI by customizing offers for individual shoppers and using analytic insights to integrate specific business constraints — such as budget, channel capacity and contact policies — into the process.

Further, SAS marketing solutions are available on-premise, via enterprise hosting or as SaaS.



### III. Pricing Optimization Meets Today's Challenges

Pricing in the supermarket industry is greatly influenced by both internal and external factors. Heightened competition and commodity price increases intersect with vendor collaboration and category management, creating a perfect storm of pricing challenges for today's grocers.

According to RSR Research, the top three pricing challenges facing all retailers today include: increased price sensitivity of consumers (58% in 2011 vs. 46% in 2010), increased pricing aggressiveness from competitors (48% vs. 38%), and increase price transparency — the impact of comparative price shopping (40% vs. 11%).

With an average number of close to 39,000 items carried in supermarkets in 2010, according to the Food Marketing Institute, item pricing can be a margin-killer. Additionally, unlike other retail segments, customers shop in supermarkets 1.7 times per week and spend between \$60

and \$180 depending upon household size. The average transaction size per trip is \$26.78.

By using shopper analytics to determine the best prices at the best times, retailers can save 2% to 3% of sales and gross profit dollars, Hertel estimated. "That's literally from just getting the pricing right," he said. With pricing optimization in place, grocers can expect to see improvements within six months and a growing rate of improvement within 18 months.

Price optimization helps grocers establish and maintain optimal everyday prices, while maximizing category margin and volume goals based on a variety of factors, such as costs,



The best demand forecasting engine will use shopper insights to forecast responses to changes in different aspects of the business, including pricing, promotions and assortment/inventory.

regional demand and competitive pricing information. This solution also allows merchants to predict the impact of proposed pricing changes.

To continue to improve efficiencies, SOK is starting with SAS Regular Price Optimization in 2011. The goal for price optimization is to maintain an Every Day Low Price (EDLP) strategy while balancing the goal of increased

monthly dividend payments to their "customer owners" based on profitability and revenue growth. "Some use it to increase prices; we use it to decrease prices," said Ilkka Alarotu, Director, SOK Trade Chain Management - Assortments and Pricing. "As a market leader in Finnish grocery business we are constantly challenged by price competition," Alarotu continued. "Our market share has increased from 15% to 45% over a 15-year period. In the future it will be ever more difficult to count on continuous growth. Profitability will be the key factor in our future success. That is

why we need more intelligence in our pricing operations. We are looking forward to building a new generation price optimization system. We are proud to carry out this challenging development process as a strategic partner of the world leading business analytics company SAS."

### Top Three Pricing Challenges Facing Retailers:

Increased Price Sensitivity (58%)

Increased Pricing Aggressiveness (48%)

Increased Price Transparency (40%)

Source: RSR Research

“With the help of SAS we have been able to reduce stockholding by at least 8% and reduce wastage by 3% to 4%... SAS is very good at providing visibility of forecasts, to measure accuracy.”

- **Gail Richmond**, Waitrose

#### IV. Demand Forecasting Supports Optimization Initiatives

The ability to predict consumer demand is the ribbon around the gift of optimization. The best demand forecasting engine will use shopper insights to forecast responses to changes in different aspects of the business, including pricing, promotions

and assortment/inventory. This solution also is designed to forecast demand for both long- and short-lifecycle products and analyze the effects across product categories.



Some of the key benefits of SAS Retail Forecasting include:

- Create a quick return on investment (ROI)
- Maximize stock coverage while minimizing costs
- Increase inventory turns
- Model future prices and promotions
- Forecast the effect on a whole category
- Forecast space more accurately
- Upgrade path to SAS Revenue Optimization Suite

With SAS Demand Forecasting, UK grocer Waitrose achieved faster and more accurate demand forecasts in order to improve stock ordering, delivery and replenishment. “With the help of SAS we have been able to reduce stockholding by at least 8% and reduce wastage by 3% to 4%,” said Gail Richmond, Manager, Branch Ordering Development for 190-store Waitrose. “We’d originally estimated

a 2% drop in wastage, so this is far better than predicted. In addition, we can look at past events and see if mistakes were made, at Christmas say, and put them right next time. Or look at successes and try to replicate them. SAS is very good at providing visibility of the forecasts, to measure accuracy.”

Using predictive modeling and inventory optimization technologies from SAS, Amway China has improved operational efficiency and shortened replenishment time from the logistics center to retail outlets by 20%, in addition to boosting customer satisfaction to 97%.



For Amway China, SAS achieved four specific goals:

- Multilevel prediction of product demand
- Intelligent transport schedule
- Optimal inventory replenishment
- Key Performance Indicator (KPI) reports and analysis

“With SAS predictive analysis and inventory optimization, we can keep inventory at the right level at the right time,” said Raymond Hui, Amway Greater China Distribution Vice President. “When business or customer demands change, we can quickly adjust via the flexible inventory optimization system. With the IOS, Amway China can not only reduce logistics costs, but also enhance customer satisfaction and improve its competitive edge.”

In order to improve productivity and drive growth at its more than 900 SOK supermarkets in Finland, S Group recently implemented SAS Retail Forecasting. SAS Retail Forecasting helps retailers predict demand and shape consumer response across a marketing-driven, multichannel retail enterprise. The solution analyzes consumer response to price, offers for S Group, marketing and operational activity to assess impact on demand. In addition to price and promotion, SAS can also assess cannibalization and halo effects, and causes for lost sales, as well as forecast new product sales.



"S Group tends to gain the best customer satisfaction scores among Finnish grocery retailers," said Sanna Timola, Director, Space Management and Forecasting at SOK Grocery Trade Chain Management. "To maintain and improve our customer satisfaction, we need to ensure shelf availability continuously. At the same time, we have to improve supply chain productivity. The most important processes are store replenishment, procurement and retail pricing. The best results can be achieved by sharing sales forecasts between business partners within the value chain and building transparency in the trading ecosystem. Implementing SAS Retail

Forecasting will be one of the most important and challenging development programs we have ever started."

When considering how to start with analytics around customer demand, Hertel suggests that retailers identify different shopper

segments and work to "surprise and delight" the best shoppers. "The starting point is understanding the critical decisions you need to make to satisfy your very best shoppers," noted Hertel. "That is a big culture change for a lot of supermarket retailers — they want to be all things to all people." But once these grocers see the math around the benefits of meeting the needs of the best shoppers, they understand and appreciate demand forecasting.

Faced with the current reality of pricing and competitive pressures, many retailers "need to reinforce their knowledge of key consumer segments and better integrate marketing and merchandising strategy," according to NRF in the 2011 Retail Horizons report. More than 70% of retailers in all industries surveyed in the report currently use demand planning (50%) or plan to implement in the next 18 months following the survey (21%).

## Conclusion

A unique and complex selling environment has created equally unique and complex challenges for today's supermarket retailers. An uncertain economy and a morphing multichannel environment, among other factors, are motivating grocers to adopt advanced analytics and optimization solutions in order to capture the best customers for the long term.

By incorporating shopper insights into business processes — including pricing, assortment/inventory, marketing/promotions and demand forecasting — supermarket retailers can increase revenue and build loyalty. Grocers also are wise to incorporate third-party shopper data into the decision-making process, in order to acquire a complete view of shoppers beyond their activity inside one retail store.

Savvy supermarket retailers including S Group and Waitrose have embraced insight-driven shopper analytics and are finding success by optimizing a variety of business practices.

Mobile technology and social media also are making inroads in the supermarket business, albeit a bit slower than some other segments of retail. Many grocers are building mobile web sites adopting location-based technology; and for the most part, grocers are in an investigative phase regarding the best use of social media



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## About SAS

SAS helps retailers and grocers spend less time crunching numbers and more time growing revenue with key technologies customized for today's multichannel merchants. Built around a powerful core of market-leading business analytics, our comprehensive suite of retail solutions tackles the industry's greatest challenges, including customer insight (customer intelligence and social media analytics); price optimization (regular, promotion and markdown); size optimization (size profiling and pack optimization); assortment planning; integrated merchandise planning (allocation, space management and optimization); forecasting (across the enterprise and across market segments); and loss prevention. With more than 35 years of experience working with leading grocers and retailers, SAS helps retailers make better decisions faster. Learn more at [www.sas.com/retail](http://www.sas.com/retail).



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