Beyond POS—Two Technologies That Can Significantly Increase Sales and Profits

An examination of technologies for retailers that go beyond traditional POS, Merchandising, Customer Profiling and Financial software.

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This is not an endorsement of any companies mentioned in the paper.

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Often when retailers think of technology for their stores, the first thing to come to mind is Point of Sale, Inventory and Financial software. More advanced retailers will also have some type of Customer Profiling software in use. However, there is a whole world of technology that is being used by retailers today that goes beyond the basic software that tracks inventory and customers. For example, many retailers are using shipping software from UPS to easily prepare outbound shipments to customers. Bar code software is also very popular as well as store signing packages. In addition to these technologies some stores are also using:

> GPS technology to insure on time deliveries by tracking deliveries to customers
> Wireless voice technology to promote exchange of information on customers' needs among sales associates within a store by keeping them 'connected'
> Intranet connections to head office to download signs and store operations information
> Staff scheduling and payroll software to maximize sales opportunities and minimize expenses by adequately staffing the store and to manage the payroll function
> Open-to-Buy planning to meet sales goals by calculating the amount of inventory needed to meet sales goals
> Store traffic counting to assess the sales potential by tracking the number of customers who come in a store
> Financial modeling to test assumptions on sales and expense forecasts
> Lease tracking to keep current on lease terms for each store
> Customer complaint technology to determine store, merchandise and service issues by tracking customers' complaints and their cause
> Store security devices (both fixed scanning systems as well as web cameras) to reduce loss by preventing shoplifting
> WiFi PDA's for cycle counting of inventory to save money by not having to do complete annual inventories and also keep inventory accuracy
> And many more

The purpose of this paper is to examine **two of these technologies** in more depth and give you insights into how they work, what the benefits are for your store and some possible pitfalls that you should avoid. These two technologies have one thing in common, they give an independent retailer not only a significant competitive advantage but also provide efficiencies that deliver greater customer service as well as increased operating margins by increasing productivity.

The two "highest payback" technologies that many independent retailers are using to increase their productivity and profitability are: **Open-to-Buy Forecasting and Traffic Counting**.

We will look at each technology trying to answer the fundamental questions, **"What is it?"**—A brief overview of the technology; **"How Does it Work?"**—An explanation of how the technology works; **"What's in it for me?"**—Why a retailer should consider adopting the technology; as well as, **"What should I be careful of?"**—a heads up on any pitfalls or issues that you should be aware of in using/adopting the technology.

>> OPEN-TO-BUY

<table>
<tr><td></td><td>**What is it?**</td></tr>
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Open-to-Buy is simply the amount of money that we have to spend in a given period to bring in stock to meet our sales and inventory plan. Open-to-Buy is calculated through the use of a six-month merchandise plan that is prepared at the classification/category level of detail, most commonly in an Excel spreadsheet. The merchandise plan has a number of components, a sales forecast, an inventory requirement to meet the sales forecast, mark downs that will be required and an estimate of the buying margin to calculate gross profit dollars. Properly executed, an Open-to-Buy plan can significantly increase turnover, reduce markdowns and increase gross margin return on inventory investment (GMROII). The process requires retailers to actually plan (forecast) each of these components on a six-month basis and update that plan each month.

In addition to the requirement of planning by month, the concept of planning at the category or classification level is also key for success in Open-to-Buy. Technically, a classification or category[1] *is a grouping or assortment of merchandise that the customer finds interchangeable*. The two key words are customer and interchangeable. In defining classifications/categories it is critical that they are understood from the point of view of the customer and the way that they shop our stores. The interchangeability simply means that the customer finds similarities in the product groupings. For example, in a clothing store a classification might be dresses. It is unlikely that a customer who is shopping for a dress will substitute a pair of walking shorts if they cannot find a dress! So, dresses are a classification. We can have what are called "sub-classifications" to the main classification. So, I can have a main classification of dresses with sub-classifications of evening dresses, casual dresses, prom dresses, etc. Planning takes place at the classification level and from there we often will split our Open-to-Buy amongst the sub-classifications.

The main reason that we plan at the classification/category level is to ensure that if we are "over bought" or have too much in one classification it does not affect another classification. For example, if we have too many dresses that should not mean that we stop buying shorts or blouses. When we have a problem in a classification/category, we need to address that problem and not penalize another classification/category because of it.

Not only do we plan at the classification/category level, we also do most of our daily/weekly analysis of the business at this level, too. The Open-to-Buy plan is a dynamic process that is often updated weekly as we get information about sales, markdowns and receiving.

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<tr><td></td><td>**How Does it Work?**</td></tr>
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A smart retailer plans their sales at the category/classification level for each month and then determines how much inventory they will need to support that sales plan. In addition, as we saw earlier, they also have to include the mark downs that they will take in this forecast. A basic Open-to-Buy plan will look like this:

	Jan	Feb	Mar	Apr	May	Jun	Total
Sales	$20,000	$30,000	$35,000	$40,000	$50,000	25,000	$200,000
Inventory	$60,000	$90,000	$95,000	$95,000	$95,000	$60,000	$50,000
Mark-Downs	$1,000	$1,500	$2,000	$2,000	$2,000	$3,000	$11,500
Open to Receive	$51,000	$36,500	$37,000	$42,000	$17,000	$18,000	$201,500
On Order	$10,000	$20,000	$10,000	$0	$5,000	$0	$45,000
Open-to-Buy	$41,000	$16,500	$27,000	$42,000	$12,000	$18,000	$156,500

[1] Classification and Category are essentially the same concept. In soft lines we call them Classifications, in hard lines they are called Categories.

A full plan includes both last year and the prior year's numbers so the buyer can track changes over a two-year-period. The plan by definition is dynamic: it changes on a weekly basis based on changes in sales trends, mark downs, on order and receiving. This plan is always done outside a merchandising system as it is very much a "what if" process and it is never a good idea to mix "what if" with real store sales and inventory data.

Ben Bublick of The Man Alive (a chain of 35 apparel stores in Georgia, Michigan, Indiana, Illinois, Ohio, Missouri, Maryland and Kentucky) has been using Open-to-Buy planning for almost ten years. Every week he looks at actual results from his POS and inventory system and adjusts his plan accordingly. Ben says: "There is no way that we could ever have grown the way we have without this type of planning. Open-to-Buy keeps us on track and ensures that we do not get over inventoried. Also, because we plan at the classification level, it ensures that we have the right amount of merchandise in each classification, which is critical to our success."

Mark Monroe of the Hat Shack (a chain of 11 hat stores in Mississippi, Georgia and Alabama) echoes the same message as Bublick. He states that: "Open-to-Buy planning has helped us provide a more balanced assortment to our customers and provides us with a higher in-stock position on our best selling hats, which translates into higher sales and profits."

What's in it for me?

As inventory is the largest asset of every retailer, the ability to accurately buy the right amount of inventory can significantly improve not only the profitability of a store but also the customer service level by having more of what customers want and less of what they do not want. If you look at the ROI calculator that is located at **http://www.microsoft.com/BusinessSolutions/Retail%20Management/Highlights/retail_mgmt_roi_calc.mspx** you will see that even a 2% improvement in inventory efficiency can lead to significant improvements in profitability.

There is no doubt that Open-to-Buy planning is a critical component of success. However, it does take commitment to the process. Clear and achievable objectives must be given to each buyer for sales increases, turnover goals, maintained margin dollars and percentages as well as GMROII targets. To simply put an Open-to-Buy process in place without specifying targets is a mistake. The goal is continuous improvement. If a buyer can achieve a 10% increase in turnover and a 5% increase in gross margin with flat or even declining sales it is considered great performance. The days of just getting sales increases without improvements in productivity are over. Smart companies are improving their turnover and GMROII every season.

What should I be careful of?

As Bublick pointed out, there are two critical factors that seriously impact Open-to-Buy accuracy: "fallouts" and "delivery slippage". In fallout, the vendor delivers less than what is ordered. Delivery slippage means that the product arrives later than planned. Either one of these factors can seriously disrupt an Open-to-Buy plan, but according to Bublick: "There is not really a lot you can do as a small retailer except try to impress on vendors the importance of shipping on time and in quantity." Until vendors understand what delayed and short deliveries do to a retailer, they will continue to do it.

A well thought out plan can be devastated by these two factors. Smart retailers will start to divert more of their orders to vendors who can ship on time and in quantity. However, the reality of the fashion world, in particular, is that "hot" vendors and items are in such high demand that they often can get away with shipping short and late and because retailers need the merchandise so badly, they put up with the lack of discipline. Open-to-Buy cannot solve this issue but it, at least, makes it more visible and retailers can try to compensate by either increasing the stock to sales ratio that they plan with or move up other deliveries where possible to mitigate the harm.

Another two of the most challenging components of OTB planning are the levels that we plan at and the accuracy and ease of importing data for the calculations. As stated earlier, we should be planning at the category/classification level. For many stores this means that we could have up to 90 or even 100 separate budgets (Man Alive, for example, plans 63 classifications and The Hat Shack has 18). The rationalization of category/classification is one of the most difficult tasks any retailer has to perform. If we plan at too high a level we will not get very many benefits and if we plan at too fine a level of detail we will spend all our time in analysis and not have time for execution!

Finding the right classifications/categories is the most important component of planning. The more categories/classifications we have, the more critical it is for feeding actual data into our plans. To re-key data at the end of each month (sales, inventory, receipts, markdowns, margin percent) is an onerous task if we have more than 25 categories/classifications. The use of a "mappable" database such as SQL Server can take all the work out of this process and give us time for the analysis of the results. If we have a merchandise system with a proprietary data base or one that is not ODBC compliant we are forced to either re-key the data or do a cumbersome export and import of data which adds time and the possibility of error to the process.

>> TRAFFIC COUNTING/CONVERSION RATES

What is it?

A retail traffic counting system is a device to monitor relative flow levels of pedestrian traffic in a given area of the store. The 3 main areas of measurement are: traffic entering the store—store entrance detector; traffic in a given area or department inside the store—store department detector; and traffic passing by the store in the mall or on the sidewalk—passing traffic counter.

Most retailers who use the technology, use the store entrance detectors. Count accuracy depends on several factors: the volume of hourly traffic, the type of traffic—groups or individuals, adults with or without children, etc.—the width of the area being counted, and the type of detector used.

How does a traffic counting system improve sales and profits? What gets measured often gets done! Measuring traffic gives valuable information on:

> Advertising/promotional effectiveness (knowing how many consumers responded to a particular ad or offer)
> Staff levels (eliminate over/understaffing by knowing when peak and non-peak times are)
> Layout and merchandising impact (if internal counters are used we can identify how customers move throughout the store and make changes that re-direct customers to areas that we want them to go)
> Window/display draw (change our windows and measure the impact on customers entering the store)
> Average time in store (the longer a customer spends in a store the greater the sales dollars spent)
> Mall performance (if our mall counts traffic we can compute how much mall traffic is entering our store)
> Manager effectiveness (managers can affect conversion rate)
> And much more

Shopper Track[2] provides the following example. Two stores, part of the same specialty retail clothing chain, are operating in different sections of the same city. Store "A" is in the heart of the city and processes an average of 200 transactions each day. Store "B" is located just outside the city limits and processes an average of 160 transactions per day. Each store's average transaction is $50, meaning that Store "A" produces an average of 25 percent more revenue than Store "B".

Analyzing this situation, many retailers are quick to conclude that since Store "A" brings in more revenue than Store "B", it must be the more successful of the two. In fact, a deeper look at each store's traffic data reveals that Store "A", being in a higher traffic area, averages 500 shoppers each day, while Store "B", in a less populous area, averages 325 shoppers per day. In determining each store's conversion rate (number of transactions divided by number of potential customers), we can see that of the 500 shoppers in Store "A", 40 percent were converted to sales, while in Store "B", 49 percent of the 325 shoppers bought at the store.

This example highlights the critical nature of conversion rate intelligence to the evaluation of multiple key business functions, from rating store, shift and individual performance, to customer satisfaction measurement and development of customer service strategies. In analyzing this situation, executives in the retail company's corporate office must conclude that either:

[2] http://www.shoppertrak.com/news_article43.html

a > store "A" is underachieving since its opportunity was much greater than that of Store "B", yet it converted nine percent less of its traffic to sales.

b > Store Store "B" is overachieving since its opportunity was far less than Store "A", yet it converted a significantly higher percentage of shoppers.

Company executives may then explore the reasons for this disparity and work to raise the conversion rate of the underperforming store. Is Store "A" adequately staffed during peak traffic times? Is Store "B" running a promotion that is helping to drive sales? If so, should that promotion be implemented company-wide? Is the manager of Store "B" doing a better job of motivating employees than Store "A" manager?

How Does it Work?

There are two ways to increase sales. Increase traffic or increase the performance on traffic. A traffic counter provides the information to identify whether increases (or decreases) in sales are the result of fluctuations in traffic or in performance on traffic, or a combination of both.

The logic is simple. Store location generates traffic. Once in the store, inventory, merchandising, layout, price, and service determine how much of the traffic makes a purchase (how many "browsers" we turn into customers, which is called "conversion ratio").

Conversion ratio and store traffic data help a retail organization measure more precisely (and improve) the effectiveness of every action taken, from changes in staffing levels to improvements in inventory, layout, display and marketing.

A more precise understanding of the impact of each activity can translate, with proper use and management commitment, to double digit sales increases, reduced staff costs, and improved productivity.

According to a survey conducted by *Larstan Business Reports*[3] over December of 2002 and January of 2003:

> Over 90 percent of the 117 retail operations managers and directors surveyed in the United States and Canada indicated that tracking the flow of customer activity in a retail location can provide valuable insight into the sales performance of brick and mortar retail chains

> 86 percent of them said analyzing traffic data and POS data offers an opportunity to make better management decisions than analyzing POS data alone

> Only 36 percent, however, indicated plans to build and/or improve traffic management strategies over the next 12-18 months.

Clearly, there is a "disconnect" between the perceived value of analyzing traffic (90% and 86% recognize the value) and only 36% has plans to actually implement strategies in the next 12-18 months!

Jean Gagne of Arhaus Furniture in Cleveland (a 21 furniture store chain with stores in Florida, Indiana, Kentucky, Missouri, New York, Ohio and Pennsylvania) who has used traffic counting technology for over a year had the following to say about their experience with traffic counters: "Although our use of data is very limited right now we still find a lot of value in it and we are trying to exploit it more and more. Today, the stores count how many people are coming and going which all goes back to St. Michael's[4] into a database. Anytime we want to use that data we pull a report and extract the data back into an Excel spreadsheet. But we find that there is so much value in those numbers that eventually we are going to automate the process. We see the value of the data to a point that when there's one abnormal number, the people in the stores call and say: 'this cannot be right. I had this rate for 4 weeks and now...Store Managers can view the data in two ways. They can click on the unit itself and view the data in real time or the managers can go and prompt or query the database on the website and view the numbers they are looking for. We are about to complete switching all of our stores over to TCP/IP which makes more real time information, 24 times a day or more, versus having the PC just do it once a day..."

Gagne had the following to say about cost/benefit of traffic counters: "From my perspective, it' a very, very low cost investment. It costs you less than $1,500 to acquire the technology and approximately $100 in annual maintenance. The cost is low and the value is tremendous.

[3]This report was prepared by the Washington Bureau of Larstan Business Reports, an independent editorial firm based in Washington, DC for St. Michael's Strategies, a Traffic Counting Company.
[4]St Michael's Strategies, a Traffic Counting Technology provider. URL: www.storetraffic.com.

It just brings so much information. While in the past the stores could tell you: 'sales are down but we only had a few customers', now if you see that they had 300 customers and sales are only $500 you wonder what's going on. It has paid for itself more than once even though no official calculation of that has been done so far. But we are continuing to add stores and each one will have traffic counters. Plus, if you look at promotions and sales you really want to see how much traffic they bring in. You can use that data in a number of ways and for many different reasons. It's absolutely valuable. I don't think we'd live without it."

And when asked about the overall feeling about the technology, Gagne responded: "It is not a resource hog (it does not take lots of extra people at head office or in the stores). It's a low cost, easy-to-put-in technology. You can quickly implement it. And you get data and start analyzing it. Folding that in with other data such as sales takes a little more effort. If you compare it to other technologies where there is lots more capital investment involved that makes it more difficult to justify, traffic counter technology is a win-win opportunity,. When you think about retail, it's all about foot traffic. Even on a manual basis, taking sales results and putting them on a spreadsheet and against traffic it's great. It's a great product at a very low cost."

Deborah Walsh at Patagonia (a chain of 20 winter/outdoors apparel and shoes stores coast to coast) said that they use traffic counters as key indicators that tell them what's going on in their business. "We look at this year traffic counts vs. last year. What we are interested in is what sort of trends are happening in our business and stores. We look at the conversion rate for each store for year-to-year comparisons and also how these stores are doing compared to other stores in our chain. We also use it as a guide if we are doing any kind of marketing initiative to see if we have moved the needle. For example, we had a catalog that we just dropped and we did something different in a couple of our markets and the traffic counts helped analyze the effectiveness of it. We look to see how we can drive additional traffic and have our conversion rate changed by putting up those sorts of offerings."

Walsh also said: "The reports help the Store Manager understand their business and what their opportunities are because if you move that conversion percentage up by half a point let's say, it's going to dramatically impact your sales."

What's in it for me?

Conversion rate is not only a crucial measure of productivity it is also one of the greatest "levers" that you have available to you to increase sales and profits. A simple chart that displays the effect of increasing conversion rate demonstrates this leverage.

	A	B
Weekly Traffic	600	600
Conversion Rate	25% (150 transactions)	30% (180 transactions)
Average Sale	$45.00	$45.00
Total Sales	$6,750.00	$8,100.00

In the above example, a store that has 600 potential customers a week and "converts" 150 of them to buyers (25% conversion rate) has total sales of $6,750 with an average sale of $45.00 ($6,750 divided by 150 transactions). If this store is able to increase their conversion rate by 5 points to a 30% conversion rate and maintain the same average sale, their total sales increase to $8,100 for a 20% sales increase on the same traffic!

As we stated earlier, what gets measured gets done. Stores that make managers aware of conversion rates find that often this focus alone can increase sales.

What should I be careful of?

One of the most common problems with traffic counters is the placement of the devices at the entrance to the store. It is not uncommon to have blockage of the devices that can cause faulty customer counts. Walsh pointed out: "The units we have are overhead detectors

and side beams. Most of our stores have overhead detectors. They are very sensitive to light, to heat and sometimes you get funny counts. If you don't get the setting exactly right when you look at year to year comparisons it is going to be out of whack."

Another component of the success of traffic counters is the integration with our sales data so we can calculate a conversion rate. This requires the calculation of the number of transactions by our POS and the movement of that data to the traffic counting software. This process has to be automated so we can get our conversion rate data without having to re-key information. Another reason why an ODBC data base such as SQL is so important.

>> Summary

These two technologies are not without some investment in both time and money for a store. Yet, the payback in increased productivity of both inventory and staff is significant.

If we want to move beyond just ringing up sales and "set the bar" for our company Open-to-Buy and Traffic Analysis are two great opportunities for growth.

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