

Harnessing Big Data to Gain Competitive Advantage

A How to for Brick and Mortar Retailers

Envysion[®]



1 in 4 shoppers

use a mobile device to compare prices while in a store.

Retail's Challenge

Today's consumers have more choices and are more informed than ever before. Consumers are increasingly using the Internet to find the best deal for products, and this practice is not limited to online shopping. The Kellogg Shopper Index reports that one in four consumers use a mobile device to compare prices while in a store.ⁱ Price conscious consumers are also more frequently using coupons or deal of the day/flash sale websites, shopping at discount retailers and purchasing store label brands.

While spending is on the rise, consumers remain prudent with their hard earned cash as high unemployment rates persist and income levels remain stagnant. Reflective of stifled consumer confidence, retail executives anticipate only modest improvements in revenue and profitability over the next year with a full economic recovery not expected until 2013 at the earliest.ⁱⁱ

In this hyper competitive marketplace, retailers face increased pressure to increase sales and reduce costs to grow profits.

Don't Bring a Pea Shooter to a Big Data Gun Fight

To address the increased pressure, retailers are keenly focused on generating more revenue from existing customers while adding new customers at the same time. The

consensus among retail executives is that these two focus areas will be the largest growth driver over the next few years.ⁱⁱⁱ To accomplish this, retailers must first understand what attracts and motivates customers purchasing decisions. In this pursuit, ecommerce and mobile channels have the clear advantage of being able to test and optimize every aspect of the online shopping experience. With robust data on click through rates, individual purchase history, shopping cart abandonment and myriad other data points, retailers can tailor the online shopping experience to capture the maximum value from every visit and entice repeat customers with personalized recommendations. Though sometimes overlooked, the physical retail channel has a material, albeit less quantifiable, advantage over online retail – a tangible, real life experience in which the consumer interacts with the product and sales associates.

While ecommerce websites have come a long way in providing product images and customer reviews to help customers select merchandise online, for many consumers the online shopping experience still cannot compete with actually being able to feel the product quality, try clothes on to see how they fit or receive immediate answers from an informed store associate. This holds true even for products that rarely vary from customer expectations, like books. A recent survey by the Codex Group revealed that almost a quarter of

**\$16
Billion**

Amount retailers spend annually on in store data gathering

people who bought a book online had first seen the book in a brick-and-mortar store.^{iv}

Spurred by the success of the highly scientific approach of optimizing.+ online revenue, retailers are investing more than \$16 billion annually^{vi} in business intelligence, secret shopping, customer loyalty, consumer tracking and other in store data gathering initiatives in an attempt to make brick and mortar stores more effective, efficient and profitable. According to the KPMG Retail Industry Executive Survey, the majority of retailers use customer data analytics as a core component of strategy and planning.^{vii}

While these investments help retailers discover trends and develop theories, these traditional solutions are expensive, difficult to implement across the entire company footprint and frequently generate insights that are solely anecdotal or significantly lag behind their point of maximum impact. Retailers still lack a real-time, detailed understanding of what occurs at the store level. As an example, if the marketing team develops a new point of purchase display based on secret shopper feedback, but the store associates do not set it up properly or on time or at all, then the display will not help boost sales as expected. This disconnect between retail management and the stores hinders retailers' ability to systematically fine tune every aspect of the in store shopping experience to maximize

sales. Whereas the online channel can improve how the shopping cart displays related items to capture more cross sells and up sells and instantly see the change reflected on the website, the physical retail channel must depend on store associates with ingrained selling habits. Without visibility to daily store operations, retail management cannot ensure that growth initiatives are implemented correctly at the store level and will be ultimately successful at increasing sales.

Gaining Vital Visibility to Daily Store Operations

While customer and operations data help retailers develop theories into what occurs in the store, data alone can only provide trends and correlations that take time to develop. To maximize growth, retailers must be able to rapidly and intelligently adjust strategies and policies based on changes in actual consumer behavior. In order to accomplish this, retailers need the real life story behind the numbers; they need to instantly see what is happening in the store to develop a complete, factual explanation of the data and quickly respond with confidence.

To bring big data to the physical retail channel, several retailers have begun to deploy video-driven business intelligence[™], which provides a real-time, factual basis for decision making. At the core, video-driven business intelligence[™] is any application that combines video with business data to give users better insight into their business to make better decisions and drive profit improvement. Most

There are an estimated

10,000

payment card transactions made every second around the world.

commonly retailers initially deploy, video-driven business intelligence™ to combine point of sale (POS) data with video so users can visually understand specific transaction types and sales, for example transactions with a promotional item or transactions with a void. However, video-driven business intelligence™ is not limited to POS data; video can be combined with any important business data, including marketing and customer loyalty, video analytics, access control, alarm monitoring, safe and environmental systems. The true power of video-driven business intelligence™ to improve a retailers profit is in aggregating several data sets across different functions in the retail organization to deliver new and even greater insights into daily store operations.

Improving Store Effectiveness for Sales Growth

Video-driven business intelligence™ gives retailers infinite possibilities for studying, testing and improving factors that drive the top line revenue growth. These factors mainly fall into the arena of sales, merchandising, promotions and customer service.

By combining video with existing data sets in a video-driven business intelligence™ platform, retailers can assemble a complete view of what occurs in the store and how to improve selling practices, adjust marketing promotions and refine merchandising plans. For example by integrating video with point of sale data, a retailer can examine

which promotions are most effective at driving store traffic or increasing the total purchase amount. Retail marketers can also leverage video-driven business intelligence™ to gain greater visibility to customer demographics and psychographics – e.g. is the customer alone or with others who influenced purchase decisions – not possible with customer loyalty programs alone.

Customer loyalty data can also be integrated into the video-driven business intelligence™ platform to help retailers understand what makes loyal customers. True loyal customers do more than just carry a brand's loyalty card; they make frequent repeat purchases, are responsible for the majority of a retailer's sales and have the least acquisition costs when amortized over time. Retail marketers can leverage video to understand the demographics of these customers, as well as controllable store factors that contribute to customer loyalty. Do loyal customers have a different customer experience that can be harnessed to develop other existing or new customers into loyal customers? For stores with an above average number of loyal customers, are there differences in the store layout, merchandising or service? Do loyal customers spend more or less time in the store than the average shopper?

In addition to understanding what drives customers to the store once or repeatedly, video-driven business intelligence™ can be used to understand sales conversions.



Time customers will wait in the checkout line before rethinking their purchase.

When integrated with video analytics, the video-driven business intelligence™ system can track customer traffic into the store and then – combined with point of sale information – establish the sales conversion rate of the store. Once the store’s conversion rate is determined, retail management can test new sales techniques and identify which store associates have the highest percentage of cross sells and up sells, as well as identify the best salespeople and watch video footage of their sales to determine new selling techniques. Conversely management can quickly identify employees who need additional training or are excessively using discounting and sales incentives – the greatest threat to profit according to retail executives.^{viii} Retail management can also virtually audit other aspects of the customer experience inside the store. For example, how friendly and helpful are employees at the customer service desk, is the store clean, are shelves adequately stocked and are employees in uniform?

Leading retailers constantly look for new ways to leverage video to solve business challenges. Russ McCombs, vice president of sales operations for Wireless Express explains that video use at the retailer “has evolved to include checking daily compliance, everything from dress code to the customer experience. We can see the body language and clarify the situation.”

Improving Store Efficiency for Increased Profitability

In addition to improving top line revenue growth, video-driven business intelligence™ enables retailers to minimize issues impacting the bottom line and reducing the profitability of each store. Protecting the bottom line is typically a combined effort by the operations and loss prevention departments, but corporate functions such as marketing and HR can also impact store efficiency.

By integrating video with business systems data, retailers can quickly identify costly inefficiencies in operations. For example, retailers leverage video-driven business intelligence™ to establish benchmarks and improvement tactics for one of the most critical areas of operating efficiency – the checkout line. According to studies by shopping and marketing guru Paco Underhill’s firm Envirosell, retailers have three minutes to get customers through the checkout line before they begin to rethink their purchase.^{ix} Not wanting customers scared away by long lines, retailer are combining analytics and POS data with video to report on stores’ line time performance and understand the underlying problems creating long lines. A variety of factors affect line time, and retailers must pinpoint the root cause before they can shorten overall line time. Did marketing issue a new coupon, but forget to add a valid coupon code in the POS? Is the store understaffed? Or does HR need to

retrain an insufficiently trained employee on using the POS terminal?

Retailers can also use video-driven business intelligence™ to identify anomalies that commonly indicate some type of fraud occurred, e.g. excessive voids or no sales, and instantly watch the video to determine if theft occurred. The instant video validation of exception reports reduces investigation time necessary to identify theft, meaning retailers stop sources of shrink faster and can review more incidents. Leveraging integrated video analytics, the system can also flag more complex issues such as returns issued without a customer present.

Big Data Tipping Point

Today's retailers have a tremendous opportunity to leverage their physical retail locations to gain significant competitive advantage. Retailers who adapt the scientific approach used for optimizing online revenue to their brick-and-mortar stores will be able to maximize financial performance through increased in store sales effectiveness. By implementing a video-driven business intelligence™ platform these retailers will gain a complete, factual understanding of daily store operations and the customer experience via a clear visual story behind disparate data sources. As a result, these adaptive retailers will benefit from an accelerated ability to identify key

trends, make decisions and respond to changing consumer behavior. These retailers will also increase operating efficiency and reduce loss to further advance their competitive lead against retailers who do not adopt a similar approach to managing store performance.

As leading retailers adopt video-driven business intelligence™, they continue to push the boundaries of big data to gain an even greater understanding of their customers across channels. While integrating traditional data systems such as the point of sale and video analytics with video is becoming the norm, best-in-class retailers will look to expand their video-driven business intelligence™ platforms to encompass data from the ecommerce and mobile channels to optimize experience and profit across all channels.

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About Envysion

Envysion enables large, national retail, restaurant, cinema and convenience store operators to increase profitability 10-15% by putting easy-to-use, video-driven business intelligence™ into the hands of the entire organization. Envysion created the Managed Video as a Service (MVaaS) model which transforms video surveillance into a strategic management tool that provides instant and unfiltered business insights to users across operations, loss prevention, marketing and human resources. The MVaaS model enables Envysion to accelerate innovation by rapidly responding to market opportunity and making new capabilities immediately available to all users. Envysion's platform quickly scales to 1,000s of locations and 10,000s of users without straining the IT department or network. For more information, visit www.envysion.com or call 877.258.9441.

ⁱ Northwestern University. Kellogg School of Management. *Going Mobile on 'Cyber Friday'*. *Kellogg.northwestern.edu*. Kellogg School of Management, 16 Nov. 2011. Web. 30 Dec. 2011. <http://www.kellogg.northwestern.edu/News_Articles/2011/mobile-Cyber-Friday.aspx>.

ⁱⁱ *Executives' Views on the Economy, Growth, and Spending*. Rep. KPMG, Nov. 2011. Web. 6 Mar. 2012. <<http://www.kpmg.com/US/en/IssuesAndInsights/ArticlesPublications/Documents/executives-views-economy-growth-spending.pdf>>.

ⁱⁱⁱ *Retail Industry Executive Survey*. Rep. KPMG, 17 Aug. 2011. Web. 6 Mar. 2012. <<http://www.kpmg.com/US/en/IssuesAndInsights/ArticlesPublications/Documents/Consumer%20Markets%20A%20Global%20View%20of%20Mergers%20and%20Acquisitions.pdf>>

^{iv} Bosman, Julie. "Book Shopping in Stores, Then Buying Online." *Media Decoder Blog*. The New York Times, 4 Dec. 2011. Web. 27 Mar. 2012. <<http://mediadecoder.blogs.nytimes.com/2011/12/04/book-shopping-in-stores-then-buying-online/>>.

^v "Top Retailers Focus on BI." *Marketing Charts*. Alberdeen Group, 26 May 2010. Web. 14 Mar. 2012. <<http://www.marketingcharts.com/topics/behavioral-marketing/top-retailers-focus-on-bi-13009/>>.

^{vi} *MSPA*. Mystery Shopping Providers Association. Web. 27 Mar. 2012. <<http://www.mysteryshop.org/media>>.

^{vii} *Retail Industry Executive Survey*. Rep. KPMG, 17 Aug. 2011. Web. 6 Mar. 2012. <<http://www.kpmg.com/US/en/IssuesAndInsights/ArticlesPublications/Documents/Consumer%20Markets%20A%20Global%20View%20of%20Mergers%20and%20Acquisitions.pdf>>

^{viii} *Retail Industry Executive Survey*. Rep. KPMG, 17 Aug. 2011. Web. 6 Mar. 2012. <<http://www.kpmg.com/US/en/IssuesAndInsights/ArticlesPublications/Documents/Consumer%20Markets%20A%20Global%20View%20of%20Mergers%20and%20Acquisitions.pdf>>

^{ix} Tuttle, Brad. "Retail Shoppers: 3 Minutes to Check-out, Or I'm Out of Here!" *TIME.com*. TIME, Inc., 9 Dec. 2011. Web. 27 Mar. 2012. <<http://moneyland.time.com/2011/12/09/retail-shoppers-3-minutes-to-check-out-or-im-out-of-here/>>.