

Industry Focus

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Citi's 2nd Annual Retail Tech Conference

Details: Technology Spending Remains Robust Despite Retail Environment

- **Our Take** — We hosted our 2nd Annual Retail Technology Conference to provide a forum for investors to learn more from technology vendors on current trends in retail and to hear from seven retailers on their technology investments, goals, and outlook. Despite the current retail environment, retailers remain committed to making technology investments, which can deliver ROI over the long run and help them manage through this unpredictable environment.
- **Technology Enables Localization** — The merchandise localization initiatives of retailers like M and SKS involve process and cultural changes, but would not be possible without a technology enabler, such as planning and allocation tools. While true localization will take years to perfect, we anticipate topline and margin benefits to begin to be realized as future receipts are impacted.
- **Multi-Channel Approach Drives Sales** — We believe that a greater portion of time this year was spent discussing the importance of e-Commerce and channel integration. More specifically, retailers are focused on improving their online functionality, assortments, and visuals as a robust and integrated e-Commerce business leads not only to incremental sales, but can drive sales to the store as well as consumers educate online and buy in store.
- **Retail Technology Shrinking the Product Lifecycle** — Retailers are using technology to increase transparency throughout the supply chain. Design and sourcing decisions are moving closer to production, giving retailers increased flexibility to adjust product to changing trends. We believe that retailers like JCP, KSS, and M who are using cycle time reduction to shorten product lifecycles, should benefit from higher sales and lower markdowns as they are able to get more relevant merchandise to stores in a shorter period of time.
- **Today's Technologies and What's on the Horizon?** — The technologies that are "top of mind" for retailers today include localization, inventory management solutions, e-commerce, clienteling, planning and allocation tools, cycle time reduction, and optimization technologies. We believe that the next wave of retail technology could include "wisdom of the crowd" forecasting, mobility devices that integrate the online and store-based shopping environments, and technologies that provide a richer shopping experience for the consumer.

See Appendix A-1 for Analyst Certification and important disclosures.

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Key Takeaways from the Retail Technology Conference

The goal of Citi's 2nd Annual Retail Technology Conference was to help investors deepen their understanding of the key technologies and trends impacting retailers today and evaluate which companies have the wherewithal to successfully implement these technologies to produce the desired return on investment.

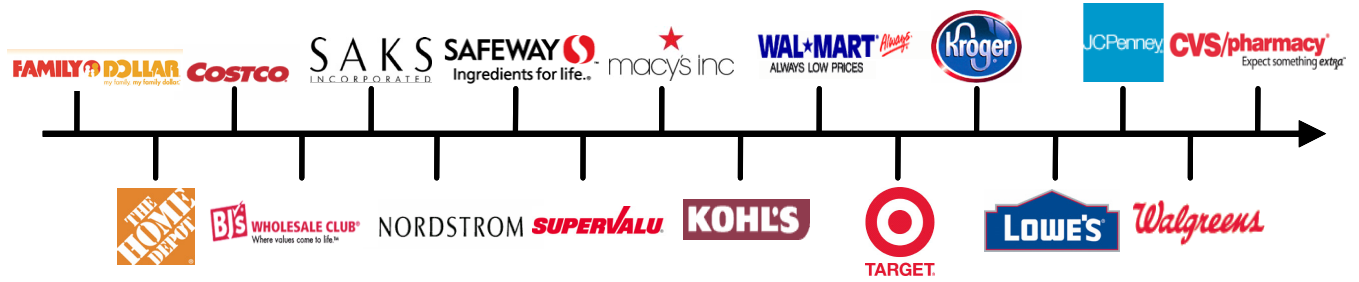
- **Retailers Seek Greater Control of Supply Chain** – Retailers are becoming increasingly involved in each step along the supply chain. The technology driving this trend is cycle time reduction, which continues to be a key focus for retailers. By decreasing time to market, cycle time reduction has increased product relevance and helped retailers increase sales, lower markdowns, and grow margins. As retailers continue to shorten the time from concept to floor, they are finding that they must work more closely with their vendor and supplier partners. We believe that this trend will likely continue as retailers seek increased flexibility in the production process to meet the changing demands of consumers.
- **Inventory Management a Significant Opportunity** – As retail sales have softened with the slowdown in the broader economy, inventory management has been a challenging area for the Broadlines retailers, particularly for the department stores. This problem was highlighted in 1Q08 as several retailers reported gross margin contraction, primarily driven by heaving inventories in light of sales trends during the quarter. While price, markdown, and size optimization can help retailers control inventories, we believe that additional opportunities exist through better merchandising, including expanding the use of private label, advertising optimization, planning and allocation tools, and SKU rationalization.
- **Increasing Relevance to the Consumer** – While localization and e-Commerce are not new to retail, these technologies are receiving increased attention from retailers this year. Both of these initiatives improve the overall shopping experience for customers, and we believe that retailers have turned to these two areas in today's environment to increase their focus on topline sales. These technologies can also help retailers develop a more intimate understanding of their customers by profiling purchase history to yield insights into future shopping behavior.

Five Technology Buckets – We believe that retailers are currently investing in five main technology buckets.

1. Merchandising (Planning and Assortment Optimization/Price Optimization/Markdown Optimization/Size Optimization/Promotion Optimization)
2. Supplier/Vendor Management (RFID/vendor portals)
3. Forecasting and Replenishment (cycle time reduction)
4. Product Fulfillment (transportation management, D.C. network optimization)
5. Multi-Channel and e-Commerce (clienteling/online customer analytics)

Broadlines Technology Continuum

Figure 1. Broadlines Technology Continuum



Source: Citi Investment Research

Citi Retail Technology Conference Agenda

Figure 2. 2nd Annual Citi Retail Tech Conference Agenda

Time	Event	Technology Services	Client Base
7:30AM - 7:55AM	Registration and Breakfast		
7:55AM - 8:00AM	Opening Remarks Deborah Weinswig - Retailing/Broadlines, Food & Drug, and Home Improvement Analyst Kimberly Greenberger - Retailing/Softlines Analyst Mark Mahaney - Technology/Internet Analyst Kate McShane - Retailing/Apparel and Footwear Analyst Brent Thill - Technology/Software Analyst		
8:00AM - 8:30AM	Macy's Inc. Thomas L. Cole, Vice Chairman of Support Services Karen Hogue, EVP & CFO		
8:30AM - 9:00AM	SAS / TradeStone Software Inc. Lori Schafer, Executive Advisor of SAS Global Retail Practice Sue Welch, CEO of TradeStone Software	Price Optimization, Markdown Optimization, Promotion Optimization, Size Optimization, Operations Management, Customer Relationship Management	Amazon, AutoZone, Charming Shoppes, Home Depot, Kohl's, Limited Brands, Macy's, Office Depot, The Children's Place, Staples, Williams-Sonoma, etc.
9:00AM - 9:30AM	Saks Inc. Kevin G. Wills, EVP & CFO Mike Rodgers, EVP Service Operations & CIO Marc J. Metrick, Group SVP Merchandise Planning & Chief Strategy Officer		
9:30AM - 10:00AM	ODIN technologies Bret Kinsella, COO	RFID	Colgate, Kraft, Marks and Spencer, Pepsi, Target, etc.
10:00AM - 10:15AM	BREAK		
10:15AM - 10:45AM	J.C. Penney Co. Inc. Thomas Nealon, EVP & CIO		
10:45AM - 11:15AM	i2 Technologies, Inc. Chuck Kramer, SVP Retail and Consumer Industries Sector	Allocation and Replenishment Management, Buying and Assortment Management, Cycle Time Optimization, Merchandise Financial Planning	Barnes and Noble, Best Buy, Carrefour, House of Fraser, Gap, J.C. Penney, Louis Vuitton, Payless Shoe Source, Saks, Tesco, etc.
11:15AM - 11:45AM	dunhumby Marc Fischli, Head of Global Client Development Matt Keylock, SVP Client Solutions	Increasing Brand Value through Customer Insight	Best Buy, Home Depot, Kroger, Tesco, etc.
11:45AM - 12:00PM	eFashion Solutions Edward Foy, Jr., Co-Founder & CEO	e-Commerce Solutions, Web Design and Execution, Inventory Management, Online Marketing, Order Processing and Fulfillment, Customer Service	CitiTrends, DKNY, Leiber, Mandee, Oscar de la Renta, Rafe, etc.
12:00PM - 1:15PM	KEYNOTE LUNCH - Bain Capital Ventures/Oracle/ ProfitLogic Scott Friend, Co-Founder & President of ProfitLogic and Venture Partner of Bain Capital Ventures	Retail Profit Optimization Solutions	Ahold, Aldo, American Eagle Outfitters, Ann Taylor, Banana Republic, Best Buy, Bloomingdale's, Boots, Burlington, Carrefour, Circuit City, Dress Barn, Espirit, Family Dollar, Gap, Goody's, Gymboree, J.C. Penney, Jones Apparel Group, Kroger, Lane Bryant, Liz Claiborne, Longs Drugs, Macy's, Meijer, Michael's, Nine West, Nordstrom, Office Depot, Old Navy, Philips, Perry Ellis, P&G, Radio Shack, Sainsbury's, Sears, Shopko, Starbucks, Steinmart, Talbots, Tesco, Toys R Us, Wal-Mart, Walgreens, Wegmans, Zales, etc.
1:15PM - 1:45PM	Kohl's Corp. Tom Kingsbury, Senior Executive Vice President - Marketing, Business Development, E-commerce, and Information Technology Jon Nordeen, EVP Administration		
1:45PM - 2:15PM	SAP Isaac Krakovsky, Vice President of SAP Retail	Customer Relationship Management, Financials, Human Resource Management, Markdown Optimization, Merchandise and Assortment Planning, Merchandising, Point of Sale, Price Optimization, Promotion Optimization, Supply Chain Management, Workforce Management	Big Lots!, Brookshire Grocery, Harrods, Home Depot, J. Crew, Kenneth Cole Productions, Limited Brands, Nike, Office Max, Petsmart, Sephora, Sonae, Under Armour, Wal-Mart, Wawa, Zappos.com, etc.
2:15PM - 2:30PM	Art Technology Group (ATG) Bob Burke, President & CEO Kim Maxwell, Director Investor Relations	e-Commerce Software, Web-Based Merchandising Software	American Eagle Outfitters, Best Buy, Macy's, Neiman Marcus, New York Company, Restoration Hardware, Sears, Sephora, Smith & Hawken, The Body Shop, Urban Outfitters, etc.
2:30PM - 3:00PM	Family Dollar Stores Inc. Ken Smith, SVP & CFO Kiley Rawlins, VP, Investor Relations and Communications		
3:00PM - 3:15PM	Coremetrics Joe Davis, President & CEO	Marketing Optimization, Online Customer Analytics	Abercrombie & Fitch, Coldwater Creek, Costco.com, J.C. Penney, Macy's, Office Depot, Office Max, Staples, Victoria's Secret, Williams-Sonoma, etc.
3:15PM - 3:30PM	BREAK		
3:30PM - 4:00PM	Urban Outfitters Inc. Calvin Hollinger, Chief Information Officer		
4:00PM - 4:30PM	Microsoft Corp. Geoff Thomas, General Manager - Retail, Hospitality, and Professional Services Industries, US Enterprise and Partner Group	Business Intelligence and Reporting, Business Mobility Solutions, POS, Price Optimization, RFID, Supply Chain Management and Optimization	Best Buy, Costco, Darden Restaurants, Domino's Pizza, Family Dollar, Giant Eagle, Kroger, Lowe's, Metro Group, Starbucks, Starwood, Target, Tesco, etc.
4:30PM - 5:00PM	Coach Inc. Thomas E. Britt, SVP & Chief Information Officer		
5:00PM - 5:30PM	E-Commerce Trends Update from CIR Mark Mahaney, Director - Internet Research Analyst		
5:30PM	CLOSING REMARKS		

Source: Citi Investment Research

The following sections are in alphabetical order by company name.

Bain Capital Ventures

Speaker: Scott Friend – Venture Partner; Co-Founder and President of ProfitLogic

Our Take:

Historically, retailers have chosen third-party vendors for their technology needs, as this provides assistance with implementation as well as on-going service and support. However, an opportunity exists for retailers to improve the analytical capabilities of their organizations by hiring better talent and forming teams charged with improving processes and creating customized models for better decision making.

Key Takeaways:

- **Retail Incontinence** – Mr. Friend believes that retailers are losing significant value as incorrect planning decisions are made in a world dominated by fast-changing assortments and large-scale retail expansion. Technological improvements represent one method for stopping this leakage. Mr. Friend also believes that forming in-house "analytical organizations" to improve decision making would significantly benefit large retailers. He believes that CVS is a leading example of a company committed to using internal talent to improve its analytical capabilities.
- **Wisdom of the Crowds** – The next wave of retail technology will likely focus on improving the shopping experience for customers. One emerging trend in this area is "wisdom of the crowds" forecasting. Using this method, retailers would ask loyal customers to vote on the merchandise that they are most likely to purchase during the upcoming season. The retailers would then use this information to make decisions about upcoming assortments. Mr. Friend believes that the data would most likely be used to make quantity decisions, rather than be used to decide on whether or not to move forward with a particular design.

About Bain Capital Ventures:

- **Company Description.** Bain Capital Ventures is the Boston-based venture capital arm of Bain Capital, whose affiliates manage over \$50 billion of assets. In 2001, Bain Capital Ventures was formed as a separate arm of Bain Capital to focus exclusively on growth investments. Bain Capital Ventures currently has close to \$1 billion under management and is focused on investing in companies that meet the following criteria: 1) Industries: software, hardware, wireless, information-services, healthcare, technology-driven business services, retail, and consumer businesses; 2) Stage of Investment: all stages of a company's growth, from providing seed capital through offering late stage growth equity and leveraged buyouts; 3) Investment Size: ranges from several hundred thousand dollars of seed capital up to \$50 million of equity capital.
- **ProfitLogic/Oracle Clients.** Ahold, Aldo, American Eagle Outfitters, Ann Taylor, Banana Republic, Best Buy, Bloomingdale's, Boots, Burlington, Carrefour, Circuit City, Dress Barn, Espirit, Family Dollar, Gap, Goody's, Gymboree, J.C. Penney, Jones Apparel Group, Kroger, Lane Bryant, Liz Claiborne, Longs Drugs, Macy's, Meijer, Michael's, Nine West, Nordstrom, Office Depot, Old Navy, Philips, Perry Ellis, P&G, Radio Shack, Sainsbury's, Sears, Shopko, Starbucks, Steinmart, Talbots, Tesco, Toys R Us, Wal-Mart, Walgreens, Wegmans, Zales, etc.

dunnhumby

Speakers: Marc Fischli – Head of Global Client Development, and Matt Keylock – SVP of Client Solutions

Our Take:

dunnhumby is driving significant value for retailers by uncovering the underlying reasons why consumers shop and then using this information for targeted marketing campaigns, optimized pricing investments, more relevant product assortments, and driving customer loyalty. We believe that the implementation of these insights will continue to drive operating performance, which should favor retailers like Kroger and Home Depot in our coverage universe.

Key Takeaways:

- **Driving Consumer Insights with Segmentation** – dunnhumby specializes in using consumer data from credit and loyalty cards to yield insights into consumer shopping habits. Segmentation allows dunnhumby to find the motivations behind what drives consumer purchasing behavior, including what products matter most and how sensitive shoppers are to price. It then combines these insights with the demographic information of a particular market to help retailers create a profile of their core customer. Once retailers know who their core customer is and what motivates her, they can uniquely target that customer through more relevant promotions and product assortments.
- **Sales and Share Gains from dunnhumby-driven Results** – Retailers that have used dunnhumby have realized significant market share gains, comparable store sales increases, and gross margin expansion. In 13 years of working with dunnhumby, Tesco doubled its U.K. market share from 16% in 1994 to 32% in 2007 and achieved 4% same store sales growth each year since 1995. Kroger has also seen its market share increase from 4.0% in 2003 to 4.4% in 2007, and ID-store sales have increased greater than 5% for the past 8 quarters.

About dunnhumby:

- **Company Description.** Founded in 1989 by Clive Humby and Edwina Dunn, dunnhumby emerged during the 1990's as a specialized provider of customer focused analytical and targeting services. From the beginning, it gained the interest of a range of high profile clients. In 1995, dunnhumby was asked by Tesco to help with the launch of their new Clubcard scheme, which started a relationship that continues today. Dunnhumby's focus on the customer and behavioral insight has played a key role in enabling Tesco to become one of the world's most successful retailers. Today, dunnhumby works on behalf of more than 150 companies worldwide. Company sales are in excess of \$200 million.
- **Key Clients.** Best Buy, Home Depot, Kroger, Tesco, etc.

E-Commerce Trends Update from CIR

Speaker: Mark Mahaney – Director, Internet Research Analyst

Our Take:

While retail e-commerce sales is a very small percent of total retail sales in the U.S., based on Mr. Mahaney's projections (and what we heard from our companies during this conference), we believe Internet penetration will grow significantly.

Key Takeaways:

- **US Internet Sector Outlook** – Mr. Mahaney projects 22% YOY Internet advertising growth to \$26 billion, 14% YOY e-retail sales growth to \$145 billion, and 14% YOY online travel bookings growth to \$106 billion in 2008.
- **US Online Retail Sector Outlook** – US retail e-commerce sales (~\$127.3 billion in 2007) has been increasing 30-40 bps annually and is expected to represent ~3.5% of total US retail sales this year, up from ~3.15% of sales in 2007 and ~2.73% in 2006. He estimates that US retail e-commerce sales will reach ~\$187.2 billion by 2010, or ~4.15% of total retail sales.
- **Personalization Trend** – Interestingly, according to Foresee Results, brand, selection, and site experience have a greater impact on customer satisfaction than price. As such, Mr. Mahaney believes personalization online (i.e., generated recommendations and search results) will become very important.

About Mark Mahaney:

- **Speaker Description.** Mark S. Mahaney is a Director covering the Internet sector at Citi Investment Research. Currently, Mark is ranked No. 1 in the Greenwich Institutional Investor Poll for the Internet sector and No. 3 in the *Institutional Investor* Annual Poll for the Internet sector. Prior to joining Citi, Mr. Mahaney covered Internet stocks for seven years on both the sell-side and the buy-side at American Technology Research, Morgan Stanley, and Galleon Capital. Mr. Mahaney holds an MBA from Wharton Business School (1996), an MA from Johns Hopkins' School of Advanced International Studies (1990), and a BA from Amherst College (1987). Prior to Wall Street, Mr. Mahaney worked in management consulting with Deloitte Touche Tohmatsu and with the U.S. Department of State, the U.S. Senate, and the Office of the U.S. Trade Representative.

eFashion Solutions

Speaker: Edward Foy, Jr. – Co-Founder and CEO

Our Take:

As of the most recent data, only a very small percentage (~5%) of apparel purchases are made online versus almost 50% of consumer electronics. This suggests that there is significant opportunity for retailers to increase their apparel sales on the Internet. With the ever changing Internet landscape, e-commerce service providers such as eFashion Solutions can provide retailers with a full spectrum of services, ranging from web design to merchandise planning to digital photo and video production to fulfillment * shipping, to online marketing & data analytics, to customer care.

Key Takeaways:

- **Online Retail Statistics** – Total US online sales are expected to grow from an estimated \$204 billion in 2008 to \$334.7 billion by 2012. The US represents only 16% of Internet users worldwide. Apparel was the No. 1 online category for e-commerce sales in 2006, beating electronics for the first time. Interestingly, while 48% of consumers made purchases for electronics online, only 5% of consumer purchases for apparel were conducted online.
- **Top Ranked Websites** – As illustrated below, the composition of the top ten websites has changed significantly in just a few years (from 2005 to 2008). As such, it is very important for retailers interested in reaching their customers online to keep up with the latest trends.

Figure 3. Website Rankings (2005 vs. 2008)

2005 Rank	Website	2008 Rank	Website
1	yahoo.com	1	yahoo.com
2	msn.com	2	youtube.com
3	google.com	3	live.com
4	ebay.com	4	google.com
5	amazon.com	5	myspace.com
6	microsoft.com	6	facebook.com
7	myspace.com	7	msn.com
8	google.co.uk	8	hi5.com
9	aol.com	9	wikipedia.com
10	go.com	10	orkut.com

Source: Alexa Global Traffic, eFashionSolutions

About eFashion Solutions:

- **Company Description.** eFashionSolutions is an e-commerce provider for apparel, accessories, and lifestyle fashion brands. The company's roster of celebrity brand partners includes Dereon by Beyonce, Baby Phat by Kimora Lee Simmons, Rocawear by Jay Z, Playboy and Shop The Bunny by Playboy, and luxury brands DKNY and Leiber. In 2007, eFashionSolutions was named to the Entrepreneur Hot 500, NJ Finest 50, received the USPS Strategic Business Development Award (prompting a Capital Hill invite), and honored as a Webby Award finalist for DKNY.com.
- **Key Clients.** Baby Phat, CitiTrends, DKNY, Enyce, JLo, Leiber, Mandee, Oscar de la Renta, Phat Farm, Playboy, Rafe, Rocawear, Sag Harbor, etc.

Family Dollar Stores

Speakers: Ken Smith – SVP and CFO, and Kiley Rawlins – VP of Investor Relations and Communications

Our Take:

Family Dollar's current technology investments are centered on store and customer-centric solutions/initiatives – Store of the Future and Project Accelerate. We expect these initiatives to improve the topline and margins over the long run and view them as sound technology investments.

Key Takeaways:

- **Store of the Future** – Store of the Future is Family Dollar's multi-year undertaking to support current and future business strategies. The key focus of this initiative is on employee efficiency, customer service, and inventory productivity. All store technology will be refreshed through several waves of investments. The following are the key component of the company's Store of the Future initiative:
 - **New POS system**, which accepts food stamps and credit cards.
 - **Enhanced management tools** including workflow management, better communications, an automated hiring system, and online training.
 - **New lane design** that is durable and metal, easier to construct, creates more space for impulse merchandise, and provides faster customer throughput. Family Dollar's POS system includes moveable POS and PC keyboards and a PIN pad device for tender types. There is also a store manager portal that puts the store manager at the front of the store to increase interaction with employees and customers.
 - **Enhanced business processes** so that store managers can run the store from a cash register at the front of the store, and switch easily between business functions.
 - **Broadened inventory control**, driven by real-time inventory information access, real-time delivery notices, enhanced price and inventory management via portable terminals, and other capabilities.
- **Project Accelerate** – Project Accelerate approaches stores in clusters serving specific customers. This initiative is critical to Family Dollar's long-term goals of improving the shopping experience, inventory productivity, and supply chain efficiency. Since launching the project in Fall 2006, the company has made great progress. Key components of Project Accelerate include clustering and assortment optimization, space management improvements, data warehouse expansion, forecasting and allocation/replenishment enhancements, and pricing management.
- **Buy vs. Build** – Family Dollar uses a combination of vendor bought and internally developed technology. Today, the company tends to buy “best of breed” solutions from technology vendors and fit them into its existing systems.
- **No Automated Checkouts** – Family Dollar management has contemplated offering self checkouts. However, the company has decided against implementing them since store managers will already be able to work near the front of the store as a result of its Store of the Future enhancements.

About Family Dollar Stores:

- **Company Description.** Family Dollar Stores Inc. (FDO) operates a chain of self-service retail stores in the United States. The company's stores offer various hardlines and softlines merchandise. Its hardlines merchandise include household chemical and paper products; candy, snack, and other food; health and beauty aids; electronics, housewares, and giftware; pet food and supplies; toys, stationery, and school supplies; seasonal goods; and hardware and automotive supplies. The company's softlines merchandise includes clothing, shoes, and domestic items, such as blankets, sheets, and towels. As of the end of F2Q08, Family Dollar operated 6,509 stores.

i2 Technologies

Speaker: Chuck Kramer – SVP, Retail and Consumer Industries Sector

Our Take:

Retailers are continuing to spend on technology despite a challenging retail environment. i2 has identified three areas of opportunity for long-term technology investment, including 1) supply chain; 2) planning and allocation; and 3) stores. We believe that retailers are committed to investment in these three areas given recent successes realized by the early implementers of this technology, and we expect to see investment in these areas continue as retailers evolve their businesses to align with emerging trends in product sourcing and customer interaction.

Key Takeaways:

- **Blurring the Line between Retailers and Manufacturers** – As cycle time reduction has shortened time to market, the typical distinction between the manufacturing and sourcing of merchandise has become increasingly blurred. In addition, higher private label penetration has made it necessary for retailers to work more closely with manufacturers. i2 has developed a supply chain optimization platform that helps retailers take time and inventory out of the supply chain, as well as improve the quality of their merchandising decisions.
- **Customized Assortments at the Store Level** – i2's merchandise planning tool, currently being used by Saks, has enabled retailers to plan assortments at the store level. This technology is designed to improve sales and reduce markdowns as merchandise is bought according to the unique demand characteristics of a particular store.

About i2 Technologies:

- **Company Description.** i2 Technologies is a leading provider of advanced-planning and supply chain software solutions for retailers. Retailers with complex planning needs and supply chains use i2's flexible solutions to deliver a superior experience while simultaneously driving improvements in inventory productivity. i2's products include a M&A solution, a product management solution, a demand fulfillment solution, a master data management solution, a forecast optimization solution, a transportation and distribution management solution, and a supply chain planning solution. Founded in 1988 with a commitment to customer success and supply chain innovation, i2 has a history of delivering value with solutions designed to provide a rapid return on investment.
- **Key Clients.** Barnes and Noble, Best Buy, Carrefour, House of Fraser, Gap, J.C. Penney, Louis Vuitton, Payless Shoe Source, Saks, Tesco, etc.

J.C. Penney Co.

Speaker: Thomas Nealon – EVP and CIO

Our Take:

J.C. Penney remains the leader with respect to technological innovation within our coverage universe. While inventory flow, cycle time reduction, optimization, and Internet growth have been hot topics as of late, the company is already thinking ahead to the next phase of technology innovation, which is expected to involve refining store support functions. We would not be surprised to find other companies following J.C. Penney's lead.

Key Takeaways:

- **Reassorting In-Season** – The recent economic downturn (and ensuing consumer slowdown and inventory glut) highlights the importance of retailers being nimble with inventory adjustments in-season. JCP's private label penetration is ~45%. As such, the company's cycle time reduction initiative, which is enabling JCP to delay cutting and dying goods until the last minute, plays an important role in the company's flexibility with regard to reassorting goods in-season. For national and exclusive product, JCP is doing its best to manage in-season merchandise by controlling the frequency of flow.
- **Expense Management** – JCP is managing staffing to better match traffic patterns using its jTime tool. In addition to labor management, the company is focused on energy management. For overseas transportation, JCP works to ensure full loads are used. For deliveries from service centers, JCP's transportation management team is focused on optimizing shipments and avoiding over delivering to stores.
- **Buy or Build** – For technologies such as cycle time reduction and planning & allocation, JCP opts to buy from technology vendors. However, for business intelligence, data warehousing, and pricing, JCP prefers to build its own systems.
- **Direct Strategy** – JCP's Internet business reached ~\$1.5 billion last year. The company is focused on using the Internet to drive sales into stores. To support these efforts, JCP introduced the "Know Before You Go" tool online four months ago. Management is also interested in improving the search capability, checkout experience, and level of rich content on its website.
- **Real Estate Development Technology** – According to management, JCP uses many on-site partners for site selection. Technology plays a more crucial role in store construction, pre-opening, and particularly new store planning. JCP's New Store Planning Tool (NSPT) ties into the company's planning & assortment suite to generate new store merchandise plans using "reference stores" that are already in the company's store base and match closely with the new stores on key criteria.
- **On the Horizon** – In addition to continual innovation around planning & allocation and cycle time reduction, JCP management suggested that the company would be focusing on improving the store environment in the future. More specifically, the company will refine some of its store support functions, such as the in-bound merchandise and receipt-to-floor processes. In July, JCP will pilot a visibility tool for its receiving process. According to management, within 48 hours of inventory receipt, associates will have an 85% accurate read on the in-bound merchandise. By 24 hours prior to

receipt, stores will have a very accurate (90-95%) read of what is being delivered to them. This will allow stores to prepare for the receipts ahead of time (clean fixtures, preset departments, etc.). Lastly, JCP will continue to find new ways to use media differently to communicate with customers (such as developing sitelets and advertising Decree on Facebook).

About J.C. Penney Co:

- **Company Description.** J.C. Penney Company Inc. (JCP) is a department store retailer whose principal activity is to provide merchandise and services to consumers through three main channels, including department stores, catalogs, and the Internet. As of the end of 1Q08, J.C. Penney operated 1,074 departments throughout the United States and Puerto Rico. The company's department store, catalog, and Internet merchandise mix is predominantly comprised of family apparel, jewelry, shoes, accessories, and home furnishings. J.C. Penney also provides services such as salon, optical, portrait photography, and custom decorating to customers through its three channels.

Kohl's

Speakers: Tom Kingsbury – Senior EVP for Marketing, Business Development, E-Commerce, and Information Technology, and Jon Nordeen – EVP of Administration

Our Take:

We believe that although J.C. Penney continues to be the technology innovation leader in our coverage universe, Kohl's has made great, impressive strides in the past several years and is closing the gap. Looking ahead, we expect markdown optimization, size optimization, concept to customer (i.e. Kohl's term for cycle time reduction), and Direct to be the company's primary areas of focus over the next two years.

Key Takeaways:

- **Markdown Optimization (MDO)** – Kohl's is very far along with its MDO, which was rolled out to all stores in early 2007. These capabilities were introduced at the store level (vs. metro level previously) in Fall 2007. Benefits include increased profitability and inventory turnover. Management expects the company to have the ability to perform markdown optimization at the color level for each store eventually. The company was also the most impressive with regards to inventory management in 1Q08 which we believe was mostly driven by the company's MDO initiative.
- **Size Optimization** – In 2007, Kohl's profiled all of its stores for their specific size profiles. Currently, the companies replenishment goods are size optimized and the company is working on optimizing multiple pre-packs, which requires certifying ~300 major vendors. Management expects some benefits (improved topline growth, markdowns, inventory management, and inventory turns) to emerge this year, and the majority of benefits to emerge in 2009 and 2010. We are impressed that Kohl's performs size optimization at a very granular level – by store and even by category within a department.
- **Promotional Optimization** – Promotional optimization is on the “back burner” right now as Kohl's focuses on other optimization tools such as markdown and size optimization. Since promotional optimization is very complicated to perform, Kohl's cannot simply buy a shelf tool from a vendor. Instead, it requires development and time. *This is the only company we follow that has even discussed this technology which we believe puts Kohl's into a class of its own with regards to thinking about marketing spend going forward.*
- **Concept to Customer** – Kohl's goal is to bring its average cycle time from 40 weeks down to 30 weeks this year. In 2009, the company will reduce its time from concept to customer down to around 25 weeks. For “Fast Track” merchandise, cycle times will be as low as 15 weeks for goods from China and less than that (9-10 week range) for goods coming from South America. Pilots have already been conducted, so the company has to make these process changes sustainable. To achieve these targets, Kohl's will reduce design time and drive supply chain efficiencies.
- **Online Growth** – Management acknowledged that Kohl's online business is underdeveloped relative to the competition. Online sales grew significantly this year and are expected to continue expanding over the next 4-5 years. Recall that in Fall 2007, Kohl's introduced a new online platform.

- **Regional Pricing** – Kohl's does not do pricing at a regional level due to marketing. While this might be a possibility down the road, it is not high on management's priority list right now.

About Kohl's:

- **Company Description.** Kohl's Corporation (KSS) operates 957 stores (as of the end of 1Q08) located in off-the-mall locations in 47 states. Kohl's stores offer national, exclusive, and private label apparel, shoes, accessories, and housewares. With a focus on customer convenience, Kohl's stores have centrally located cash registers to expedite checkout, wide aisles, shopping carts/strollers and bags, as well as a relatively smaller, easy-to-shop store format.

Macy's Inc.

Speakers: Thomas Cole – Vice Chairman of Support Services and Karen Hoguet – EVP and CFO

Our Take:

The majority of Macy's technology spend is currently allocated to two initiatives – My Macy's and growing the Direct business. On the localization front, process and cultural changes are the key drivers, but they would not be possible without technology enablers. On the Direct front, Macy's management recognizes the crucial role that the Internet plays in communicating with and grabbing wallet share from customers.

Key Takeaways:

- **“My Macy's” Initiative** – Macy's has been working on the implementation of its “My Macy's” localization initiative, which is aimed at accelerating sales growth in existing locations by ensuring that core customers surrounding each Macy's store find merchandise assortments, size ranges, marketing programs, and shopping experiences that are custom-tailored to their needs. The company just implemented its new organizational structure in May and is beginning to receive feedback from its local teams about “low hanging fruit” ideas for change. Management expects to have better merchandise execution beginning this Fall, with the majority of the improvements emerging in Spring 2009.

Technologies that play a key role in supporting this initiative include planning & allocation tools, as well as the launch of a vendor portal this Fall, which is expected to provide vendors with a lot more transparency into Macy's sales data (and can be considered a breakthrough in the department store space). We believe this portal will be similar to Retail Link at Wal-Mart and Lowe's Link at Lowe's. We believe that the company's technology investments play a very large role in the smooth implementation of the localization effort.

- **Cycle Time Reduction** – Macy's current average cycle time is around 40 weeks. The company has identified three main categories: 1) basics, which will maintain 8-10 month cycles; 2) fashion, which should move faster; and 3) fast moving goods, which have ~17 week cycles today and will shrink to less than 15 weeks over time.
- **Markdown Optimization** – The Bloomingdale's division uses markdown optimization tools from ProfitLogic while Macy's has its own homegrown optimization process, known as 20/20. Recall, the 20/20 program focuses on reordering the top 20% (top-selling products) and clearing through the bottom 20% (worst-selling products).
- **Leveraging Online** – Macy's is very focused on growing its online business and has added two direct-to-consumer distribution centers (TN and AZ) to support the anticipated growth. Management believes that customers are already shopping the company's website and stores together, and that their multi-channel customers spend more at Macy's. Interestingly, Macy's is leveraging its website by sending customer reviews posted online to the Macy's Merchandise Group (MMG).

About Macy's Inc:

- **Company Description.** Macy's, Inc. (M) is one of the leading department store retailers in the United States. The company's retail stores sell a range of merchandise, including men's, women's, and children's apparel; and accessories, cosmetics, home furnishings, and other consumer goods. As of the end of 1Q08, Macy's, Inc. operated 853 department stores in 45 states, the District of Columbia, Guam, and Puerto Rico, under the names of Macy's and Bloomingdale's. The company also operates macys.com and bloomingdales.com. Macy's Inc. was formerly known as Federated Department Stores, Inc. and changed its name to Macy's, Inc. in 2007.

Microsoft

Speaker: Geoff Thomas – General Manager, Retail, Hospitality, and Professional Services Industries, U.S. Enterprise and Partner Group

Our Take:

The role of technology is becoming increasingly important for both retailers and consumers. Technology presents retailers with the opportunity to develop a new level of intimacy with the customer, and this relationship yields insights into the motivations that drive her shopping behavior. The development of solutions that meet her needs and are marketed in a way that appeals to her will lead to higher sales and increased customer loyalty in the long run.

Key Takeaways:

- **Technology Megatrends** – Microsoft has identified six technology megatrends that is guiding its investment in retail technology, including 1) Performance of Hardware; 2) Ubiquitous Broadband; 3) Mobility and New Devices; 4) Unlimited Storage; 5) High Fidelity Displays; and 6) Natural User Interface. These trends are being used to form a framework for the development of products that meet the needs of the digital consumer.
- **Microsoft Takes Advertising to the Virtual World** – Using its X-Box 360 gaming system, Microsoft partnered with a leading national pizza chain to integrate the chain's brand message and advertising content into an X-Box 360 game. The pizza chain knew that its target customer was also the consumer who enjoyed playing X-Box 360. Through X-Box 360, Microsoft provided a new channel for the chain to effectively reach its target audience.
- **Software + Services** – Microsoft is currently working with retailers to provide them with solutions that enable the digital consumer, drive a better in-store experience, increase cross channel transparency, and boost real-time intelligence and operational efficiency. Microsoft also believes that there is significant potential to expand its relationships with retailers by integrating software plus services into a retailer's multi-channel strategy.

About Microsoft:

- **Company Description.** Founded in 1975, Microsoft is the worldwide leader in software, services, and solutions that help people and businesses realize their full potential. Microsoft and its partners are committed to delivering retail solutions that provide retailers with a competitive edge. The company's retail solutions are based on a combination of innovative Microsoft technology and partner experience and knowledge. These solutions help transform the store environment into an innovative and high-performing operation where retailers can more easily: integrate disparate infrastructure and applications; empower employees to make fast decisions; improve the transaction and information flow; increase customer service and loyalty; and streamline operations at both corporate and store levels.
- **Key Clients.** Best Buy, Costco, Darden Restaurants, Domino's Pizza, Family Dollar, Giant Eagle, Kroger, Lowe's, Metro Group, Starbucks, Starwood, Target, Tesco, etc.

ODIN technologies

Speaker: Bret Kinsella - COO

Our Take:

RFID can greatly increase the efficiency of retailers' inventory management systems. Compared to barcode scanning, RFID is 90% faster and more accurate (accuracy rate of 97% with RFID and 86% with bar codes). While the rate of RFID adoption in retail has slowed, we believe that retailers will gradually adopt this technology when and where it makes sense, as the benefits of an RFID system make it an attractive investment.

Key Takeaways:

- **Defined RFID Strategy** – Retailers today are taking a rifle-shot approach to RFID, meaning that they are using a defined strategy to accomplish clear, precise goals. This is much different than in the past, when retailers used a shotgun approach that was characterized by rapid adoption with many general goals for the RFID system.
- **Wal-Mart No Longer the RFID Story** – Wal-Mart was one of the leaders of the initial push into RFID by retailers and was the catalyst for a lot of RFID investment. Today, retailers' understanding of RFID's capabilities has matured and RFID hardware, software, and support have improved. Global Electronic Product Code (EPC) standards are in place and passive tag costs now only cost \$0.10, making it easier for retailers to implement an RFID system. In addition, Chinese manufacturers are making progress in integrating their systems with the global standards.
- **Inventory Management Benefits from RFID** – RFID enables the efficient flow of inventory and can help retailers realize significant savings on inventory costs. Gillette uses RFID to track the placement of promotional displays in stores, ensuring that the stands are displayed in conjunction with Gillette's advertising campaign. The company saw a 30% lift in sales at stores where displays used RFID.

RFID is also very useful in automating routine functions. For example, Marks & Spencer in the U.K. places RFID tags on individual apparel items in-store. The company can now use RFID to take store inventory in less than 30 minutes, whereas it used to take two people two days to complete the same task.

About ODIN technologies:

- **Company Description.** ODIN technologies was founded in 2002 and is the top-ranked RFID integrator by end-users. ODIN is the first company to produce a software suite for both end-users and resellers which automates the design, installation, and on-going management of RFID systems. Global corporations leverage ODIN technologies' expert engineers and patented RFID optimization tools to achieve accuracy, speed, and visibility for their RFID deployments. ODIN's Global Headquarters and RFID Lab are in Dulles, VA.
- **Key Clients.** Colgate, Kraft, Marks and Spencer, Pepsi, Target, etc.

Saks

Speakers: Kevin Wills – EVP and CFO, Mike Rodgers – EVP of Service Operations and CIO, and Marc Metrick – Group SVP of Merchandise Planning and Chief Strategy Officer

Our Take:

At Saks, technology investments such as the i2 planning system, POS/clienteling system, and web enhancements are geared towards driving topline and gross margin expansion. We believe that Saks is still in the early stages of many technology initiatives (such as localization and optimization), but leads the pack with regard to clienteling solutions.

Key Takeaways:

- **Direct Enhancements** – Saks' e-commerce business has been growing significantly (up ~40% YOY), and management's main focus is on driving cross-shopping. The company has worked to enhance the online shopping experience by redesigning the interface last year and adding interactive content (such as fashion show videos and interviews) more recently. Going forward, Saks will continue to invest in this business.
- **POS/Clienteling** – Saks started to roll out a new web-based POS/clienteling system last year to half of its stores (23 stores). This year, Saks will complete the rollout in all stores by September 2008. Management was very excited about this initiative, as the new system includes many features, including touch screen, reporting (highlights underperforming associates), scheduling, ability to cross-sell to Saks Direct, and email capture. The company is even testing this technology in some of its Off 5th stores.
- **Markdown Optimization Is on Back Burner** – Currently, markdown optimization is not a priority for Saks based on its other existing initiatives and low private label penetration. Management believes that its Full-Line stores should be focused on buying better and avoiding markdowns altogether. However, markdown optimization could make sense for Off 5th down the road.

About Saks:

- **Company Description.** Saks Inc. (SKS) is a retailer that operates 54 Saks Fifth Avenue luxury department stores, 48 Saks Off 5th outlet stores, and saks.com (as of 1Q08-end). The company also operates 76 Club Libby Lu specialty stores (as of 1Q08-end). SFA stores offer a range of luxury fashion apparel, shoes, accessories, jewelry, cosmetics, and gifts. These stores are principally free-standing stores in shopping destinations or anchor stores in upscale regional malls. Off 5th stores are primarily located in upscale mixed-use and off-price centers. Club Libby Lu stores consist of mall-based specialty stores, targeting girls aged 4-12 years old. Recall, Saks previously operated Saks Department Store Group (SDSG), which was made up of Proffitt's and McRae's (acquired by Belk, Inc.); NDSG - Bergner's, Boston Store, Carson Pirie Scott, Herberger's, and Younkers (acquired by The Bon-Ton Stores, Inc.), and Parisian (acquired by Belk, Inc.).

SAP

Speaker: Isaac Krakovsky – VP of SAP Retail

Our Take:

Of the technology applications in use by retailers today, approximately 70% are custom applications that have been developed in-house. SAP's suite of retail technology solutions is designed to capture share of this market. Although we believe that opportunity exists for retailers to hire in-house analytical teams, we expect retailers to continue to expand their technology platforms through the use of third-party vendors like SAP.

Key Takeaways:

- **Single Platform Creates Consistency Across the Organization** – SAP provides retailers with a holistic set of solutions designed to run on a single platform. SAP's solutions allow information to be shared across the entire organization, eliminate unreliable information sources, and give retailers the flexibility to gradually build out their systems. We believe that retailers are increasingly moving to the adoption of third party systems instead of developing technology solutions in-house.
- **Wal-Mart to Roll Out SAP Finance** – Wal-Mart will begin rolling out SAP Finance in January 2009. Wal-Mart's choice to partner with SAP represents a major change for Wal-Mart, which has historically used home-grown IT systems, and a major shift by retailers, in our view, to the use of third parties for their IT needs.
- **2008 Focus** – SAP believes that the focus of retail technology in 2008 will be on 1) POS systems; 2) Demand Management; and 3) Mid-Market Retailing. In light of the challenging macro environment, we believe that retailers are looking for solutions that will begin to generate returns immediately, like POS systems and optimization software.

About SAP:

- **Company Description.** Founded in 1972 as Systems Applications and Products in Data Processing, SAP has a rich history of innovation and growth that has made the company the recognized leader in providing collaborative business solutions for all types of industries and in every major market. The company, headquartered in Walldorf, Germany, employs more than 51,200 people in more than 50 countries, and serves more than 47,800 customers worldwide. SAP for Retail gives retailers of all sizes the power they need to make the right decisions quickly and profitably – the power it takes to create shopping experiences that motivate their customers to return again and again. SAP for Retail is an end-to-end set of solutions that supports demand-management, merchandise management and planning, store operations, and base finance and HR functions.
- **Key Clients.** Big Lots!, Brookshire Grocery, Harrods, Home Depot, J. Crew, Kenneth Cole Productions, Limited Brands, Nike, Office Max, Petsmart, Sephora, Sonae, Under Armour, Wal-Mart, Wawa, Zappos.com, etc.

SAS / TradeStone Software

Speakers: Lori Schafer – Executive Advisor to SAS Global Retail Practice and Sue Welch – CEO of TradeStone Software

Our Take:

We believe that the concept of combining product design with planning and allocation, as discussed by SAS and TradeStone Software, is a significant opportunity for retailers. Changing customer demands and volatile sales trends have increased the need for retailers to become more involved in each step along the supply chain. Transparency along the supply chain and shared consumer insights are becoming increasingly important for both retailers and vendors. Through the use of predictive analytics and tools like Macy's vendor portal, we believe that retailers and manufacturers will begin to share responsibility for key design and sourcing decisions.

Key Takeaways:

- **Moving Production Closer to Prediction** – One of the biggest challenges facing retailers today is how to plan assortments to meet customer demand. Retailers that can integrate the creative process of product design with the model-driven analytics used to develop an assortment plan will find that they are able to match products more closely with demand and adjust their assortment in-season as demand changes.
- **Significant Benefits Through Process Improvement** – Retailers can benefit from the combination of design and assortment planning through more trend-right merchandise, lower fashion risk, lower markdowns, reduced inventory, and increased customer loyalty. However, in order to realize these benefits, retailers will be forced to adjust their relationships with suppliers, as suppliers will likely demand hard commitments to production and assistance in obtaining financing.

About SAS:

- **Company Description.** SAS offers retail executives unique competitive advantages for their organizations. CEO's, CFO's, EVP's of Merchandising, CMO's, and CIO's trust SAS for mission critical business applications to drive shareholder value. Retailers can select from a wide range of powerful SAS solutions that include nearly three decades of SAS retail analytics experience, along with retail expertise and merchandising best practices from Marketmax. From predictive performance management for executives, customer intelligence for more effective marketing and understanding of consumer buying behavior, operational intelligence for in-store and back office analytics and merchandise intelligence for integrated merchandise planning, full lifecycle price optimization, demand forecasting, allocation and in-season management, SAS drives topline results in the highly competitive retail industry.
- **Key Clients.** Amazon, AutoZone, Charming Shoppes, Home Depot, Kohl's, Limited Brands, Macy's, Office Depot, The Children's Place, Staples, Williams-Sonoma, etc.

About TradeStone Software:

- **Company Description.** TradeStone Software Inc. provides retailers and suppliers with a Unified Buying Process™ that helps increase sales, improve margins, and reduce time to market. TradeStone's MLM suite is the retail industry's first and only turnkey solution for private label brands. TradeStone's PLM for Retail, Sourcing, Quality Management, and Global Order Management solutions mask the complexities of global trade. Additionally, TradeStone's MLM centralizes the buying, sourcing, and selling process into one system that everyone can access and update as needed, eliminating the human error associated with manually updating spreadsheets, data entry into multiple databases, and keeping up with long email trails with vast amounts of critical information.
- **Key Clients.** American Eagle, The Children's Place, Circuit City, Macy's, Pacific Sunwear, etc.

Appendix A-1

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