



Smart stores: Enhancing the retail customer's shopping experience

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Executive summary – Thanks to mobility, profiling and smart tags, stores will never be the same again. This new level of information integration will benefit managers, employees and customers. In particular, there is the potential for enhancing the customer experience at all four levels: availability of products, ease of locating them, access to knowledgeable employees and fast checkout.

In this Executive Technology Report, Peter Andrews interviews Jan Jackman, the General Manager of the IBM Retail Emerging Business Opportunity (EBO) organization. She is focused on helping retailers – especially in the U.S. – begin the transformation toward retail on demand due to 1) strong competition and 2) the convergence of Web technologies that now impacts the store level.

Peter Andrews How does the Retail EBO work with its clients?

Jan Jackman Our focus is on the interaction between the retailer and the consumer throughout the customer shopping process – from Web to store to after-sales service and support.

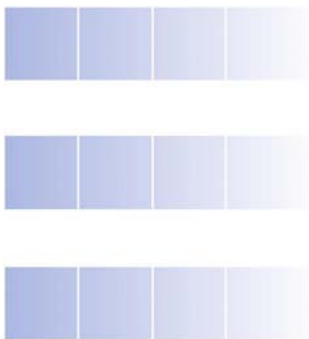
We are focusing on being able to integrate these touch points and share data among the intelligent devices or touchpoints to provide better information to the consumer making a purchasing decision. Traditionally, the only point of transaction has been at the point of sale. With new Web-based technologies, a retailer can now interact [in] realtime with the consumer throughout the process. By integrating Web channels, catalog and store, a retailer can have a single view of a consumer and perhaps serve them better.

Peter Andrews Could you walk me through a next generation transaction, illustrating some of the new capability?

Jan Jackman Sure. There are three areas of focus: consumer facing/experience, employee productivity, and efficiency of store operations. All focus on the end point of providing a better experience for the customer by either direct interface or providing the employee information and letting them be the interface to the consumer or by automating manual tasks to [enable the reallocation of] employee time for more customer-facing activities.

Peter Andrews Do you have any interesting pilots in progress?

Jan Jackman I can tell you the types of pilots that seem to have great interest. In the customer-facing area, an example is a cart-mounted shopping





device that sits on the shopping cart that you use in the grocery store. The consumer comes in, picks up the device, mounts it on his cart [and] swipes his loyalty card into the device. There are infrared detectors (IR) mounted into the ceiling of the store, so it knows where in the store you are. From the cart, you can order your deli products, and it beeps you when the order is ready. You scan your items and directly bag them when you put them in your cart. The screen lets you know that the apples next to you are on special today.

Peter Andrews Sort of like OnStar for the grocery shopper. Does it use customer profiling software?

Jan Jackman It does take data from what you previously purchased, your PoS transactions and gives you personalized coupons, so you not only get the general store coupons but discounts on stuff you usually buy. It reminds you of things you usually purchase when you're on that aisle. What they've found so far in the pilot is that it increases basket size just by reminding you of things. Also, it avoids lines at the deli so therefore increases sales as most people walk away rather than wait.

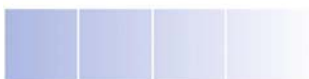
The trick is to be able to quickly roll this out across all outlet stores worldwide. It takes new wireless infrastructure, hardware, software integration with enterprise applications (apps) and store apps.

To date, most of our focus has been on enterprise and supply chain. Customer loyalty is most affected by people's experience at the store level. If you can provide better info and services to the consumer, they buy more. Most consumer packaged goods (CPG) companies want to make sure their products are 1) on the shelf and 2) promoted effectively. There are four key areas we've found that affect consumer experience:

- Products on the shelf
- Easy to locate
- Employees are available and knowledgeable
- Fast checkout.

Having products on the shelf affects CPG and ties to radio frequency identification (RFID). When the shelf is empty, how do you expedite the item through the supply chain? Also, today CPGs pay retailers millions of dollars to promote their goods but get no feedback on the effectiveness of the promotion.

If you ran a digital media promotion, tied it to the PoS to show that during the time the promotions ran, sales increased by X dollars, the CPG companies get excited. This is all enabled by integration of data across the store then through the enterprise and supply chain – on demand. [In fact,] it's the missing link in





on demand.

Peter Andrews As a missing link, is it a model of on demand for other industries?

Jan Jackman We find most every industry has retail stores. Blockbuster is media and entertainment; Goodyear is industrial sector; automotive companies have dealers as the retailers, so this goes well beyond the bounds of the traditionally defined retail industry.

Peter Andrews Retail isn't just retail.

Jan Jackman Yes.

Peter Andrews Another example?

Jan Jackman OK, let's take employee productivity. Our focus is on supplying information on key performance indicators that can improve the efficiency of each employee role, such as inventory, promotions, employee scheduling [or] task management.

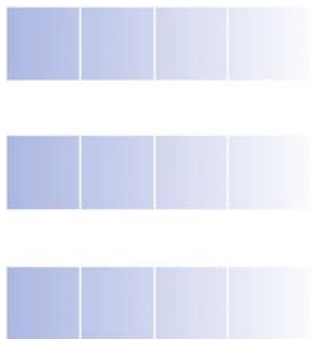
Peter Andrews Do these pilots rely on any new technologies? Or do they mostly involve pulling things together in clever, effective ways?

Jan Jackman Both new and existing; new areas are RFID, business activity monitoring, leveraging of grid technology, autonomic [computing]. [What is new] in retail is how you monitor, manage, and update all of these new devices and apps at thousands of retail stores.

The key is that this is transformational for retailers, it's moving from product push to consumer pull. Because now you have better information on consumers wants and needs, which requires retailers to think differently about how their staff is incented and measured. Cross-selling requires cross category owners, not product owners. And to use online techniques...in the store. Make it fun to shop.

About this publication

Executive Technology Report is a monthly publication intended as a heads-up on emerging technologies and business ideas. All the technological initiatives covered in *Executive Technology Report* have been extensively analyzed using a proprietary IBM methodology. This involves not only rating the technologies based on their functions and maturity, but also doing quantitative analysis of the social, user and business factors that are just as important to its ultimate adoption. From these data, the timing and importance of emerging technologies are determined. Barriers to adoption and





hidden value are often revealed, and what is learned is viewed within the context of five technical themes that are driving change:

Knowledge Management: Capturing a company's collective expertise wherever it resides – databases, on paper, in people's minds -- and distributing it to where it can yield big payoffs

Pervasive Computing: Combining communications technologies and an array of computing devices (including PDAs, laptops, pagers and servers) to allow users continual access to the data, communications and information services

Realtime: "A sense of ultracompressed time and foreshortened horizons, [a result of technology] compressing to zero the time it takes to get and use information, to learn, to make decisions, to initiate action, to deploy resources, to innovate" (Regis McKenna, *Real Time*, Harvard Business School Publishing, 1997.)

Ease-of-Use: Using user-centric design to make the experience with IT intuitive, less painful and possibly fun

Deep Computing: Using unprecedented processing power, advanced software and sophisticated algorithms to solve problems and derive knowledge from vast amounts of data

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