

All-Channel Experience: Engaging with Technology- Enabled Shoppers In-Store

**How New In-Store Digital Tools Can Drive Value for
Shoppers and Retailers**



Case Study: Albert Heijn Uses Dynamic Pricing and Digital Signage to Reduce Waste on Fresh Produce

Netherlands-based grocery retailer Albert Heijn wanted to test advanced technology solutions for intelligent waste management at store level in order to reduce waste in its produce departments. The retailer initiated a pilot together with Capgemini, Toshiba TEC and other partners.

The intelligent waste management solution is based on adjusting the messaging on electronic signs to reflect changes in pricing, product information, promotions and plan-o-grams. The system compares predicted and actual sales rates and analyzes expected deliveries and current stock levels to determine what predefined measures must be executed to avoid overstock or imminent out-of-stock situations. The solution consists of centrally controlled wireless digital displays and shop floor hand-held scanners (to be used by mandated personnel with the knowledge and experience to make decisions regarding freshness and promotions to increase sales).

The solution has resulted in numerous benefits, including:

- Lower costs and increased sales due to reduced waste
- Improved corporate social responsibility by addressing the food waste issue
- Reduced labor and print costs and the elimination of price discrepancies between shelf labels and POS systems

People today seamlessly integrate the use of all types of technologies in their lives, including the way they shop – at any time, at any location. As a result, they are more informed and selective about the products and services they want and use, and are more empowered towards the industries that serve them.

In this environment, the growth of mobile features and device convergence such as smartphones are driving mobile commerce. At the same time, store visits are being enhanced by dynamic digital displays and personalization through hand-held devices or the shopper's own phone. These changes provide retailers with the opportunity to drive greater value by making the switch from “talking to” towards “engaging with” consumers and shoppers.

Creating an Experience-Led In-Store Environment

A growing number of digital channels, from apps to kiosks to the web, are replacing elements of the shopping experience that would previously have occurred in a physical space, calling for the store environment to evolve. This shift requires retailers to think differently about the shopper experience and service model

across all channels and touchpoints, including physical stores.¹ Stores need to offer experiences consumers can't have in the digital space, by becoming destinations of choice. They need to blur the boundaries between digital and physical. And retailers need to re-examine their strategy to provide a seamless experience across the entire customer buying journey.

The ability to provide a superior in-store shopping experience is critical for retailers to drive value for consumers. According to a survey by RSR, 88% of retailers with annual revenue over \$1 billion cite “improving the customer experience” as one of their top three uses of in-store technology.² Retailers can target several levers to help create an experience-led in-store environment:

- **Easy access to information** through smartphone apps, surface computing devices, self-service kiosks, digital signage and public social networks.
- **Faster response to shopper queries** with hand-held/multi-touch devices, augmented reality and online product recommendation engines.
- **Ability to locate products quickly**, enabled by digital and e-paper signage and smartphone apps.
- **Quick and easy checkout** through the use of self-checkout kiosks, personal shopping scanners/mobile POS, mobile phone payments and contactless payments.

Digital Tools Drive Value for Shoppers and Retailers

Powerful digital tools can be used in a wide range of applications in a retail environment to provide a more seamless experience (Figure 1). Following is a closer look at some of these applications.



¹ "How Digital is Transforming Physical Experiences," <http://blogs.uk.capgemini.com/ceblog/page/6/>, Customer Experience Blog, Capgemini, Dec. 2, 2010

² "The 21st Century Store: The Search for Relevance," RSR, June 2011

Figure 1: Digital Tools for Each Step of a Shopper's in-Store Journey



Source: Capgemini

Smartphones allow retailers to interact with customers at every step of their shopping journey.

The significant rise in the smartphone user base globally is leading retailers to leverage this technology to enhance interaction with shoppers. And for good reason. According to a Google survey, 70% of U.S. smartphone owners use their device while shopping in-store, and 74% of smartphone shoppers made a purchase as a result of using their smartphone.³

Before the actual in-store experience, shoppers can use their smartphones to access a store locator, search for product availability, and access price and promotional coupons. Using

mobile applications such as “geo-fencing” or location-based services retailers can identify customers in the vicinity of a store. They can then use this technology to entice customers into the store by sending out messages on products, promotions and exclusive deals to consumers in the geo-fenced area.

During the in-store shopping experience, smartphones can be used to scan a barcode or run a price comparison, access product information, check customer reviews and ratings, and get quick in-store/aisle navigation. After the shopping experience, shoppers may use their phones to track and trace a product delivery from the store.

Retailers can also improve their understanding of the shopper buying journey by tracking smartphone usage in store, which can be a key input for improved store design and layout. And location-based capabilities make it easier for retailers to reach the customer at any time before, during or after a shopping trip.

While smartphones offer significant opportunities to enhance the shopper experience, they also present challenges. For example, retailers have to depend on third-party communications providers for connecting with shoppers, and some consumers worry about the possible erosion of privacy.

³ “The Mobile Movement: Understanding Smartphone Users,” Google/IPSONS OTX MediaCT, April 2011

Case Study: Boulanger Launches its First iPhone Application

The Situation: Boulanger is a leading multimedia and electronics multi-specialist based in France since 1954. In early 2010, as part of a panel of leading French retailers, Boulanger was introduced to a set of new mobile solutions. After the presentation, the company asked Capgemini to design and build a new iPhone solution – one that would offer superior functionality and service to its customers.

The Solution: The Capgemini Innovation Factory team worked with a team from Boulanger to design and integrate an application that would not only meet basic customer requirements (geo-localization of stores, item description and price, etc.) but would actually go beyond to set a completely new standard for the industry.

The Result: In the first six weeks after it was launched, the application was downloaded more than 20,000 times, with peaks at 1,500 downloads per day. It quickly reached “top 25” status for all iPhone applications in its category. The success of the application has also resulted in a strong association of the Boulanger brand with a young, dynamic and eager clientele.

“Our aim was to develop a user-centric application designed to bring real value to our shoppers and customers. This is a complete application enabling purchase transactions with a real-time inventory look-up feature in the nearest selected stores, loyalty management and product guarantees,” said Patrick Perret, Director of Information Technology Studies at Boulanger.

In addition to mobility and speed, other standout features of the application are:

- Direct access to all available products in nearby stores
- Booking an item and retrieving it in the store within the hour
- Real-time updates on special events and promotions
- Real-time order/repair status
- Display of all purchase tickets to enable an improved after-sales service
- Viewing products using augmented reality wherein a Boulanger item could be visualized as it would appear at home.

Surface computing and multi-touch devices add a new dimension to interactive shopper engagement.

These touch-based graphical interactive devices allow people to interact with content and information on their own or collaboratively with their friends and families. With multi-touch devices, in-store shoppers can locate and select products on touchscreens at an interactive station, download product information on a mobile device or locate items in-store. Tablets can be used for checkouts by applying finger signatures. These devices can also issue SMS or e-mail receipts, thus enabling faster checkout. And increasingly retailers are using tablets as “assisted sales tools” to provide more consistent and efficient sales support by store staff.

Surface computing technologies such as tablets help retailers provide a connected experience with a higher degree of service. Benefits include increased in-store sales and conversion rates; a reduced learning curve for new employees; a more engaging and efficient buying experience for shoppers; and the ability to assist sales associates in up-selling and cross-selling with quick product information, customer opinions, etc.

On the downside, most of these devices are relatively low on mobility, compared with smartphones. In addition, tablet apps are still in a nascent stage so a complete understanding of their functionalities is not yet clear.

Augmented reality applications can improve in-store communications and enhance the overall shopping experience.

While still in an early stage, augmented reality has the potential to make a great impact on the retail industry for both shoppers and retailers. In-store touchpoints like interactive kiosks can be used to enhance real-world data or images with computer-generated input such as images, graphics or data. In addition, apps based on augmented reality using object recognition and GPS can help shoppers locate and find their way to or through a store.

Additional retail applications include product reviews via image recognition, price checks, product availability, virtual fitting rooms and interactive window displays. Augmented reality can provide an enhanced way to interact with shoppers in real time. However, at this early stage, the set-up and management costs associated with augmented reality may outweigh the sales benefits.

Point-of-sale technology is moving from traditional to advanced systems, keeping in mind the changing customer.

POS applications have the potential to move beyond transaction-only devices to become the primary medium to deliver customer-centric retailing. New applications provide the opportunity to improve the in-store experience by reducing consumer checkout times and abandon rates. For example, “line-busting” applications use wireless devices to emulate the cash register and give credit card shoppers the chance to skip checkout lines, helping to enhance a store’s service image. This type of portable POS is especially suited for goods and orders that are large and where a store employee is closely involved such as in a DIY store or home center.

POS applications can also improve convenience and flexibility. Store employees can connect a wireless access point into the retail backbone and create an instant “store” for special occasions or venues such as graduations or sporting events. And retailers can improve operating efficiency through faster processing, faster interaction with store employees, improved access to product and inventory data, and better employee tools.

Although advanced POS solutions can help retailers improve customer centricity, the rate of adoption remains slow. A key hurdle is the potential need for POS upgrades in order to accommodate the new applications.

Mobile payments is a growing area for retailers and is gaining importance due to the rise in smartphone adoption by customers.

Retail applications offer the potential to improve the shopping experience and increase efficiency. Mobile payment methods include proximity payment approaches like Near-Field Communication (NFC), barcodes and numeric codes, as well as remote methods like message-based, browser-based and application-based payments.

In one example, a mobile app was launched that uses facial recognition to confirm a shopper’s identity in payment transactions. And a new retail mobile payment service based on NFC technology lets consumers pay for items merely by waving or tapping their smartphones near a register at checkout.

Although the field of retail mobile payments is dynamic and evolving, several challenges exist, including:

- Capital constraints and difficulty in quantifying the technology ROI
- Lack of comprehensive industry standards for mobile technology adoption
- Government restrictions/regulations related to payment security concerns and fraud
- Unwillingness of stakeholders like mobile service providers and banks to adopt mobile payment systems



In-Store Tech Trends to Watch

Several additional in-store digital technologies are also being tested by retailers:

- QR codes:** In Korea a grocer is using QR codes innovatively to expand its presence. The retailer has erected several virtual stores in subway stations, taking the form of large billboards with virtual store that are exact replicas of the physical stores. Shoppers can use their smartphones to scan a QR code near the food item, which gets delivered shortly to a location of their choice.
- Mobile coupons:** Users of mobile coupons are expected to exceed 300 million globally by 2014, triggered by the apps revolution.⁴ Recent innovations in coupons are leveraging digital trends like geo-targeting and group buying.
- Social Local Mobile Media (SoLoMo):** The increased adoption of smartphones and related mobile apps has given rise to a concept called “SoLoMo,” which represents the coming together of social, local and mobile media. SoLoMo works on the principle of mobile discovery that utilizes a device’s portability and location awareness to push content.
- Video analytics:** Video analytics can enable retailers to study store traffic flow, dwell time, shopper intent and conversion rates. Current video analytics technology has reached a point where it can detect how and when a shopper is actively engaged with promotional messaging, determine basic demographic data such as gender, and then use that information to push relevant content to the shopper in real time.

Figure 2: Reaping the Benefits of In-Store Digital Technology

Technology	Example Applications	Benefits
Real-time store monitoring technology like video analytics	Intelligent tracking system that identifies the shopper, his/her last visit date, purchase patterns	Shopper behavior intelligence, shopper loyalty information
Smartphones	Apps provide a virtual map for store layout, aisle information	Easy access to information, greater functionality, faster connectivity
Mobile coupons	Coupons related to any promotional campaigns can be directly sent to customers	Promotions for targeted customer segment, call-for-action, personalization
Augmented reality/surface computing device	Check product information, stock levels, product placement on aisles	Customer engagement, interactive experience
Tablets	Assisted selling by store staff for an interactive and engaging shopping experience	Process-driven selling, customer conversion, up-selling and cross-selling
E-paper signage/digital signage	Supporting customer service by providing information related to product, pricing	Price accuracy, dynamic pricing, improved customer readability
Smartphones/tablets	Helps customers make informed decisions by providing price comparisons, reviews	Customer experience, information aggregation
Self-checkout kiosks/advanced POS systems	Alternative to traditional POS for faster and easier checkout	Self-service, queue management, faster checkout
Mobile payments/NFC technology	Transactions authorized using mobile device can enable speed and convenience at cash counters	Faster speed of transaction, information security, customer experience
Mobile POS/advanced POS systems	Supports sustainability efforts by retailers by providing paperless receipts and quick checkout for customers	Quick checkout, paperless transactions

Source: Capgemini

⁴ “Navigating the Mobile Coupon Landscape,” Edo Interactive, June 2010

The Role of Employees in Digital Transformation

The impact of in-store digital transformation is not only being felt by shoppers, but also by employees. According to a study conducted by RIS News, 50% of participating retailers said that providing their associates with better tools was their number one priority.⁵

Retailers today are looking to invest in employee-facing technologies to help improve in-store business processes as well as to provide more consistent and efficient sales support for shoppers. Employee-operated mobile handheld devices for line busting, in-store customer service, barcode scanning and inventory operations are among the new digital tools being used in-store.

Recommendations: How to Become a Digital Master

Successful in-store digital transformation requires retailers to adopt the right tools to keep pace with technology-enabled shoppers. Retailers must craft a sound strategy that is centered around the shopper.

To become a digital master, retailers should consider the following recommendations:

Focus on the shopping journey.

Retailers must implement digital tools and technologies while always considering the full customer shopping journey – from awareness to after-sales service – to help ensure a seamless experience.

Differentiate yourself. Technology adoption should be treated as a source of competitive advantage by retailers looking to improve their in-store customer experience.

Make it mobile. Mobile technology such as smartphones, mobile POS and mobile payments will play a key role in in-store digital implementations. Rapid smartphone adoption by customers will drive the manner in which they interact with retailers, both within and outside the store.

Deliver self-service capabilities.

Do-it-yourself technology like self-scanning and hand-held devices will be adopted in a big way by customers as they look for tools to make shopping and checking out easier and faster.

Communicate a new reality.

Retailers should continue to adopt technologies like augmented reality that help provide the “Wow!” factor for shoppers and can improve interactions between the two parties.

Consider existing applications.

Retailers will need to balance adopting new technology innovations with their existing technology applications to ensure smooth integration and fast implementation in order to meet rapidly changing shopper preferences.

Focus on people. A successful in-store digital transformation is only possible if both the people and technology pillars are bound by robust and well-defined processes. Employee involvement and training is critical in technology implementation to realize the full potential of the technology and to achieve the business objectives.



⁵ “Store Systems Study 2011,” *RIS News*, January 2011



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