

Strengthening Retail Brands with Digital and Mobile Technologies

Today's connected consumers expect retailers to demonstrate technological savvy, and falling behind can hurt both the brand and bottom line.



Working with leading retailers and technology partners around the world, Intel is helping develop an array of intelligent solutions that capitalize on shoppers' thirst for technology and produce higher returns on retailers' marketing investments, helping retailers strengthen their brand.

Introduction

Retailers are facing one of their biggest brand-related challenges in decades due to a wave of shoppers wanting to connect anywhere-anytime using their mobile devices. These shoppers rely on smartphones, tablets, and laptops and are attracted to stores and web sites where they can use advanced technologies to efficiently locate, evaluate, and purchase products.

For these shoppers, the value of a retail brand is closely linked with its technological savvy, and brands offering a digitally enhanced, seamless shopping experience hold a strong edge over their competitors. The brand challenge for retailers is to keep pace with rapidly evolving, customer-driven technology in an effort to continue attracting—even dazzling—connected consumers.

Intel continues its work with leading retailers and with technology partners around the world to develop an array of intelligent solutions that capitalize on shoppers' thirst for technology, while providing retailers with data on customer behavior. With this data, retailers can improve promotional effectiveness, better manage their inventories, improve operating efficiencies, and produce higher returns on their marketing investment—in short, strengthen their brand.

And these Intel® architecture-based solutions dazzle. They offer the rich, immersive shopping experiences that attract customers and take advantage of digital and mobile technologies to provide the seamless and efficient experience today's shoppers demand.

Touchpoints and Technology

Technology is transforming the retail landscape at a rapid rate, with key trends converging to empower retailers and consumers. Massive boosts in processing power mean the Internet, mobile technology, and social networking are joining with Big Data and robust analytics to provide new sources of information useful to retailers and shoppers alike.

Shoppers can now move from touchpoint to touchpoint, viewing the retail environment as a single all-encompassing experience instead of a group of channels. More than ever, shoppers demand that this experience be immediate, convenient, and productive—whether they're tapping on interactive digital displays in a store aisle or their mobile devices while lounging on their living room sofas.

Today's brick-and-mortar footprint continues to evolve, with shoppers becoming even less tolerant of sluggish checkout lines and out-of-stock items—their two biggest in-store complaints.¹ Proactive retailers can boost shopper sentiment by offering more personalized promotions, compelling digital displays, and a wealth of product specifications to help shoppers make better-informed buying decisions, whether in-store or online.

Retailers now recognize that consumers will not be separated from their mobile devices, and instead are integrating mobile technology deeper into the retail enterprise. As an example, many retailers are accepting the practice of

showrooming—where shoppers view and compare items in a store but make the actual purchase online—less as a threat and more as an opportunity for cross-selling and up-selling to in-store customers.² They are capitalizing on the consumer appetite for digital and mobile technologies and using them to strengthen their brands.

Experiencing the Brand

Shoppers evaluate retail brands in many ways, but are increasingly focused on two areas where digital technology wields influence—the immersive quality and the convenience of the shopping experience.

Recent developments in digital technology—many of which rely on Intel® products for processing power and seamless integration—continue to change the face of retail and optimize brands.

One example is intelligent signage systems that can detect viewers’ gender, age bracket, and other demographics. With this data, the signage can instantly display messages targeted to individual shoppers. Whether displaying a choice of mortgage options near a bank teller’s window or switching a message instantly from lingerie to auto supplies in a department store kiosk,

customers enjoy viewing relevant information. A few other examples are listed in Table 1.

Connected consumers also rank retail brands in relation to the actual purchasing experience, which is where online stores have long held an edge over their brick-and-mortar counterparts. A growing number of brick-and-mortar retailers, with the help of Intel® technology, are expanding purchasing options beyond traditional check-out terminals to sales associates and even the shoppers themselves, anywhere in the store.

The retail emphasis on better-informed sales associates—armed with tablets and fluent in obtaining product information from kiosks and other devices—can also mean mobile point-of-sale abilities, where they help shoppers with products and pricing and conduct purchases on mobile devices.

Meanwhile, many retailers are experimenting with in-store shoppers using their own digital wallets and mobile point-of-sale apps to buy items, thereby avoiding sluggish checkout lanes and improving convenience. And the more convenient customers find the shopping experience, the more positively they view the retailer’s brand.

Strengthening the Brand

Aware that eye-catching and convenience-enhancing technology is important when connected consumers evaluate retail brands, Intel is working with solution providers around the world to develop a range of products to significantly improve the shopping experience.

Here are several examples of in-store solutions Intel and its partners have introduced that use Intel-powered intelligent systems in highly visual and memorable ways.

Labels with a Lure

Intelligent shelf solutions can attract and inform shoppers. Attractive electronic shelf labels can display product prices, promotional messages, and even video clips, all in eye-catching formats.

Shoppers at METRO GROUP, the world’s fourth-largest retailer, can learn about new products and promotions at captivating end-cap displays. Shelf labels with LCD modules for displaying price, product information, and high-definition video are located next to the featured products. Attention-grabbing advertisements and animations on store shelves can help retailers and consumer packaged food manufacturers to better capture shoppers’ attention.

Table 1. A few examples of Digital Technology in the Retail Space

Interactive video walls	Can provide informative and eye-pleasing content and allow shoppers to select from a virtual catalog of product offerings. Digital signage can speak directly to shoppers to enhance their shopping experience and support the retailer’s brand.
Visually powerful video displays	Can enable, for example, apparel merchants to compellingly display new fashions and products. Examples are adidas* using a large interactive wall to introduce new lines of footwear, and Burberry* dramatically increasing fashion show attendance with visually sophisticated content transmitted to its flagship stores around the world.
In-store interactive digital kiosks	Can feature full-size, high-definition images of major appliances and other large-footprint products. These interactive displays enable customers to experience and compare products—including multiple exterior and interior views, specifications, and product reviews—virtually. These cost-effective virtual showrooms can provide shoppers first-hand experiences of a wider range of products saving retailers the space and expense of stocking them.
Digital shelf displays	Can provide pricing and special promotions and brighten shelf space. These displays can also feature video presentations that are especially vital when introducing new products. Retailers can easily update digital shelf labeling to help reduce out-of-stock or overstock conditions while giving shoppers a more entertaining journey through the store aisles.

Intelligent shelf solutions are especially effective with items such as new dairy products, where failure rates are high because shoppers are reluctant to try them. With these vibrant shelf displays, shoppers are alerted to the new products through multimedia and targeted promotional messages.

METRO GROUP's intelligent shelf solutions manage and distribute data using content management systems with Intel® Core™ i7 processors that have the computing power to simultaneously send out different content to thousands of LCD-based shelf labels. Intelligent shelf solutions enable retailers to lower operating costs associated with regularly updating price tags throughout the store.

Virtual Showroom Displays

In an era of showrooming, more retailers than ever want to bridge the gap between online and in-store shopping. Intel has partnered with augmented-reality specialist, YDreams, and social media application developer, Betapond, to create an intelligent digital solution that harnesses the flexibility of e-commerce with the power of actual in-store product comparisons, all delivered through an interactive digital experience.

This intelligent shopping solution consists of in-store digital displays and kiosks connected to the retailer's product inventory database. It features vibrant full-size images in high-definition displays driven by media players based on Intel® Core™ processors. Consumers can interactively examine product images, view specifications and reviews, compare products, and even use their mobile devices to post opinions or questions to social media sites.

By reducing the retailer's showroom inventory display and handling requirements, this virtual approach reduces the need for physical floor space and minimizes the potential for damage to out-of-box display products—all contributing to higher margins for retailers.

Flavorful Destinations

Known worldwide as a leading brand of herbs and spices, McCormick is using interactive digital displays to promote the "McCormick World of Flavors," a large kiosk where shoppers can discover their unique flavor profiles and

even play "Guess That Spice," a fun game of identifying spices based on scent.

Developed by 5th Screen Digital Services, the popular in-store digital destination runs on touch-enabled HP digital signage displays and HP All-in-One* and TouchSmart* PCs based on Intel architecture. The hardware is remotely monitored and managed by 5th Screen Digital Services using Intel® Active Management Technology (Intel® AMT) to ensure uninterrupted service.

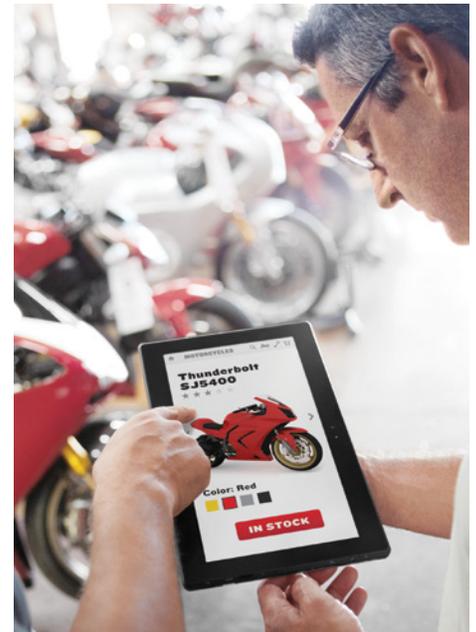
As part of the display, entertaining video presentations tell the McCormick brand story and engage shoppers in a virtual cooking experience guided by chefs using McCormick products. The emphasis throughout the McCormick World of Flavors is on rich content, high levels of shopper participation, and personalizing the shopping experience to drive higher sales.

Custom Coffee Selections

European coffee purveyor Costa Coffee, the world's second-largest coffee chain, uses Intel-based digital technology to more deeply engage customers at self-service coffee cafés. The Costa Express* CEM-200 concession machine integrates touchscreens, cashless payment, and near-field communications to improve the purchasing experience, as well as digital displays for striking design and imagery.

In an era when shoppers are demanding more personalization from retailers, Costa Express offers different coffee selections based on customer profiles. Using anonymous viewer analytics, an Intel solution, to determine such attributes as gender and age bracket, the coffee station not only provides a custom selection of coffee but also collects demographic and purchase data useful for marketing purposes. A single Intel® processor-based board handles machine operations, reducing costs over earlier designs that required three separate boards to support all this functionality.

Costa Express's user interface and cashless payment options make it easier for customers to make purchases—even accommodating multiple purchases for colleagues—to help boost coffee station sales.



Intel is working with solution providers around the world to give shoppers the immersive, convenient, and productive shopping experiences they demand.

Vending Systems With Flair

PepsiCo's new interactive vending solution is a highly visual platform utilizing Intel Core processor technology. It features touchscreens so shoppers can select viewable video presentations such as nutritional information or the most recent PepsiCo commercials.

Shoppers can send refreshment gifts to friends and play on-screen games to win free beverages, even electronically charge their personal mobile devices with specially designed power outlets and USB ports.

This intelligent vending solution also closely monitors beverage inventory levels, automatically orders more, and allows for easy online updating of promotional messages. Using the Intel® Intelligent Systems Framework means the vending machine is efficiently and securely connected to the network and can be managed remotely.

Empowered Sales Associates

A growing number of shoppers want knowledgeable sales associates to help them make purchase decisions and then execute the transaction if they decide to make a purchase. To help develop a deeper one-to-one relationship between customers and sales associates, a number of retailers are equipping their sales force with powerful mobile devices capable of accessing new levels of product information.

A popular tool to empower sales associates is the Fujitsu Stylistic* Q702 Hybrid Tablet PC, a smart mobile device capable of showing customers online information, as well as exclusive product content that can raise brand awareness.

As a result, customers can benefit from more personalized experiences, while businesses gain better-informed sales associates and greater brand control. The hybrid tablet/PC interfaces with a variety of retail peripherals, including magnetic strip readers for credit card payment and external bar code scanners.

Based on an Intel® Core™ vPro™ processor, the hybrid mobile device enables sales associates to have the same, if not more, product information at their fingertips as customers, who can enjoy the convenience of having a sales associate quickly complete their transactions face-to-face.

Building Brand Infrastructure

Brand-enhancing digital devices offer retailers benefits far beyond compelling displays that attract customers. Embedded Intel technologies can improve operational efficiencies across the enterprise and increase returns on marketing investments, benefiting both the brand and the bottom line. Here are a few examples of how Intel is helping lead the way to cost-effective digital deployments:

- Marketing effectiveness can be improved with customer-behavior data that digital devices can collect using the Intel® Audience Impression Metrics Suite (Intel® AIM Suite). The Intel AIM Suite uses anonymous viewer analytics to sense when a customer is approaching, determine gender and approximate age, and intelligently adapt messages to better reach the particular demographic. It also measures dwell time, or the time someone views the content, to help determine viewer preference of specific marketing messages.
- Fleets of digital devices, such as signs and kiosks, can be cost-effectively monitored from centralized locations with Intel AMT systems. Intel AMT provides the ability to remotely diagnose, repair, manage inventory, and power systems on and off. With Intel AMT, marketing campaigns and promotions are easily coordinated and revised across an entire network of devices.
- Digital device implementation and maintenance costs are being reduced through industry-wide initiatives such as Open Pluggable Specifications (OPS), where Intel plays a key role. The OPS objective is

to permit modular, interchangeable retail systems to work together. It also makes it easier to upgrade devices while lowering the total cost of ownership.

Assembling these and many other intelligent solutions into a cohesive retail enterprise with the necessary connectivity, security, and manageability is the focus of the Intel Intelligent Systems Framework. Many enterprises have separate networks that do not communicate well with one another, offering fragmented views of customers and unable to provide the seamless shopping experience consumers want.

To help, the Intel Intelligent Systems Framework offers consistent standards for connectivity, security, and manageability of intelligent systems throughout the retail environment—from cash registers and interactive digital signage to store shelves and warehouses. The framework brings together hardware, operating systems, and software for increased connectivity, manageability, and security, while scaling across diverse applications.

Intel has a long history of creating scalable technologies and ecosystems that drive transformations in computing across the retail industry. Intel is assembling an ecosystem of system vendors, ISVs, system integrators, and cloud-to-device services that build on the Intel Intelligent Systems Framework and will work closely with the Open Data Center Alliance to ensure seamless integration of intelligent systems with the data center and cloud.

The framework supports Intel® Xeon® processors, 2nd and 3rd generation Intel Core processors with Intel® vPro™ technology, and Intel® Atom™ processors. These processors are important components in digital devices used throughout the retail environment.

Conclusion

Intel technology is helping retailers worldwide to meet and often surpass the expectations of today's consumers who evaluate retail brands on their ability to accommodate digital and mobile devices.

While many digital devices are designed to display compelling video, promotional messages, and even on-shelf pricing, consumers also want to use their mobile technology to make their shopping experiences more efficient and convenient, oftentimes a key determinant of their opinion of a retail brand. For retailers, digital technology can help integrate the enterprise, reduce overhead costs, improve

inventory controls, and increase the return on their marketing investment—all while providing shoppers with an improved experience, which leads to a stronger, more competitive brand.

Intel is helping to define the standards and produce the technologies that, in conjunction with key solution developers around the world, are transforming the retail industry.

For More Information

- www.youtube.com/watch?v=xo-kpZtgzAM
- www.intel.com/content/www/us/en/intel-innovation/retail
- www.intel.com/intelligentsystems

For more information about retail solutions from Intel visit:
Intel.com/retailsolutions

¹ Retail Information System (RIS) News, 2011 Shopper Experience Study. (2011). risnews.edgl.com/retail-research/2nd-Annual-2011-Shopper-Experience-Study--Taking-the-Store-to-the-Shopper73426

² STORES.org, Tying It All Together, November, 2012 www.stores.org/STORES%20Magazine%20December%202012/tying-it-all-together#UQSA06X154E

Intel® Active Management Technology (Intel® AMT) - Requires activation and a system with a corporate network connection, an Intel® AMT-enabled chipset, network hardware and software. For notebooks, Intel AMT may be unavailable or limited over a host OS-based VPN, when connecting wirelessly, on battery power, sleeping, hibernating or powered off. Results dependent upon hardware, setup and configuration. For more information, visit Intel® Active Management Technology.

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