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# How to Win in an Omnichannel World

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# HowtoWin inan OmnichannelWorld

Retail customers are now‘ omnichannel” in their outlook and behavior—they use both online and offline retail channels readily. To thrive in this new environment, retailers of all types should reexamine their strategies for delivering information and producís to customers.

BY DAVID R. BELL, SANTIAGO GALLINO AND ANTONIO MORENO

**THE LEADING QUESTION**

How can retailers effectively adapt to an omnichannel environment?

**FINDINGS**

- **Consumers' omni channel behavior is spurring innova tions in the ways retailers provide information and products.**
- **Both traditional and online retailers should consider hybrid online-offline approaches.**
- **Hybrid approaches inelude inventory-only showrooms and "buy online, pick up in store" options.**

PAULA CUNEO, A TEACHER IN Ashland, Massachusetts, ordered 10 pairs of corduroy pants in a range of sizes and colors from Gap Inc.'s website, and later returned seven of them, according to a 2013 *Wall Street Journal* article.[1] Ms. Cuneo is, perhaps unwittingly, an exemplar of a key challenge in today's omnichannel retail environment — an environment where customers shop through a variety of online and offline channels. The challenge omnichannel retailers face is this: How can retailers provide consumers with *information* (about what producís best suit them) without incurring downside on product *fulfillment* (delivery of products)?

The omnichannel environment presents new challenges and opportunities for both information and product fulfillment. This is equally true for "traditional" retailers like the Gap, which began business with physical stores, and "new" retailers like New York-based eyeglasses brand Warby Parker, which started out by selling online. While *all* retailers need to effectively and efficiently manage fulfillment and information provi sión, there are important nuances to how this happens — depending on where and how the retailer got started and what kinds of improvement create the most leverage.

This article delivers a customer-focused framework showing how to win in the omnichannel environment through critical innovations in information delivery and product fulfillment. The framework emerged from our research with both traditional and nontraditional retailers. To thrive in the new environment, retailers of all stripes and origins need to deploy information and ful fillment strategies that reduce friction in every phase of the buying process. This means simultaneously providing, in a *cost-effective* and *narrative-enhancing* way,

information that removes initial uncertainties and barriers to purchase — as well as fulfillment options that allow retailers to get their products to customers in the most convenient and cost-effective way.

Our research relies on detailed customer-behavior data (such as visits, purchases and returns) from omnichannel retailers. We then used these data to perform statistical tests of the impact of management interventions (such as website enhancements and showroom openings) on overall demand and fulfillment efficiency. (See "About the Research.") We explain why the best way to navigate the omnichannel environment is to: (1) take a customer perspective and (2) view the activities of the company through the lens of the two core functions of information and fulfillment. Last, and most important, we elabórate on each of the core elements of our information and fulfillment matrix in detail and highlight the key implications for omnichannel retail practice.

## A Customer-Focused Framework

We adopted a customer-focused perspective on omnichannel strategy, as our research and experience tells us this that is best way to ensure the formation of cohesive and effective initiatives. The framework asks two simple yet fundamental questions: (1) How will customers get the information they need to facilítate their purchase decisions? and (2) How will transactions be fulfilled? (See "The Information and Fulfillment Matrix.")

When it comes to fulfillment, customers either visit the store to pick up Ítems or the "store comes to them" when products are delivered. This is true with information, too, as customers either visit stores to obtain (offline) information or seek information remotely, either online or perhaps through catalogs.

Prior to the advent of the Internet, there were really only two generic types of retailers. The first type was traditional retailers, indicated by the upper-left quadrant in our matrix (quadrant 1), wherein all product information is delivered offline through physical stores, and customers visit stores to take fulfillment. Many retailers still opérate exclusively in this quadrant, as exemplified by Ross Stores or HomeGoods. The second type was catalog retailers, which can be considered an early precursor to today's pure-play online retailers (quadrant 4), in which information is delivered directly to customers via the Internet (instead of a catalog) and product fulfillment takes place via delivery.

The development of the commercial Internet spurred growth in the number of pure-play Internet retail companies (quadrant 4), with online transmission of information and fulfillment via delivery, as exemplified byAmazon.com or Overstock.com. The great promise of the "omnichannel revolution," however, lies not simply in the new retail businesses

## ABOUT THE RESEARCH

We conducted our academic research on omnichannel ¡ssues by using large customer databases from Crate & Barrel, Bonobos.com and WarbyParker.com and supplementing them with other data from external public sources as necessary (discussed below). We worked closely with executivesto elabórate research ¡ssues that were not only of theoretical or aca demic interest but also of practical economic importance to retailers.

To facilítate our research, management provided us with the following kinds of data fields: unique customer ID (disguised for confidentiality), transaction date, transaction ítems, transaction valué and customer (shipping) ZIP code. We were also privy to information on other important kinds of customer activity, including website visits and data on product sampling and product returns. Management made available detailed information on the timing and nature of specific interventions (for example, website improvements) so that we could assess the impact, if any, they had on sales, returns and other customer behaviors.

Furthermore, since it is well known that sales through online channels vary dramatically by geographic location in accordance with the types of customers living there and their local shopping options,' we appended a rich set of geodemographic data to the sales data provided by the companies. One nice feature of this data is that it is freely or cheaply available from government and commercial sources, such as the U.S. Census and the geographic information system provider Esri.

We characterized each U.S. location (ZIP code) according to several local features, including the age, income, education and ethnicity of local residents; total population; and population density. We were also able to describe several aspects of the local offline retailing environment, including the number of offline stores likely to compete with the websites of the companies we were studying, offline expenditures on the product category, travel distance to offline retailers, and so on.

After assembling the customer and manage ment intervention data, we estimated econometric models to assess the impact of key management interventions: specifically, whether they worked (for example, whether a "buy online, pick up in store" program increased sales at the website) and, if so, whether there were any unintended consequences, either pos- itive or negative. In many instances, we were analyzing so-called "natural experiments," in the sense that the management interventions took place in the f ield and a number of real cus tomers with real buying experiences were exposed to them, while other customers were unaffected by these changes and could be used as a control group.

made possible by Internet connectivity, but also more subtly and profoundly in the emergence of the retail strategies located in quadrants 2 and 3.

One observation immediately apparent from our information and fulfillment matrix is that a retailer has the potential to opérate in any of the four quad rants. However, to develop intuition for what kinds of combinations of information delivery and fulfill ment will succeed for what kinds of businesses and why, it helps to first focus on the exemplar cases for quadrants 1 and 4 and think about the producís and experiences for which they excel.

All "traditional" retailers began life in quadrant 1, delivering information to customers via in-store ex periences and fulfilling demand there as well. This ineludes retailers that stock others' brands, as well as vertical retailers that sell their own brands (typically manufacturers such as Apple, Nike or Patagonia). To win in an omnichannel world, however, a traditional player needs to expand through quadrants 2,3 and 4. Similarly, we argüe that a pure-play online retailer needs to pursue quadrant 2 and 3 strategies, and consider partnerships with traditional (quadrant 1) retailers as well.[2]

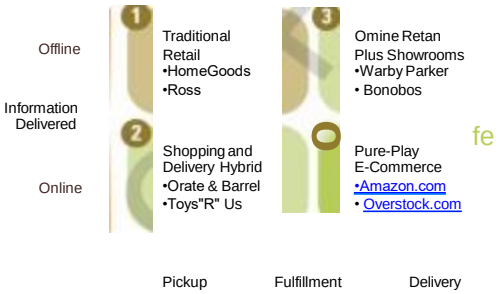
## Navigating the Framework

The predominance of quadrant 1 retailing is an em-pirical fact of developed and emerging markets alike. In 2013,e-commerce (excludingtravel) as a percent-age of the total retail market was a mere 10% in the United Kingdom, 8% in the United States and 6% and 1% in China and India, respectively.[3]

Nevertheless, it is natural and most likely impera-tive for most traditional retailers to particípate in quadrant 4 and build an e-commerce operation. Quadrant 4 retailing is growing at a rapid pace, both within the United States and abroad.[4] We predict that the "synchronized" experiences of quadrant 1 and quadrant 4 activities — where information and fulfillment activities are accomplished in the same channel — will continué to anchor retail and that new players will start businesses in either quadrant, but that new players' operations will be greatly enhanced by strategies and activities that fall in quadrants 2 and 3. This is due to the opportunities that arise from decoupling the information and ful fillment dimensions of quadrants 1 and 4. Let's start by looking at the information dimensión.

### THE INFORMATION AND FULFILLMENT MATRIX

In an omnichannel retail environment, customers can either visit stores to obtain information, orthey can seek information remotely. They can also either visit a store to pick up ítems, or the store can "come to them" when produets are delivered.




## Information: Remote vs. Direct Access

When retailers opérate in online quadrants (2 and 4), this dictates that they give customers informa tion about the produets through some remote means, such as a catalog or a website. This form of information delivery is most suited to produets containing few, if any, "nondigital" attributes.[5] A nondigital attribute — for example, the fit and feel of apparel and related categories or the taste and texture of produets — is diffícult to fiilly observe and assess without a physical inspection. Uncer-tainty about nondigital attributes is a key barrier to consumers' willingness to buy online and is an especially important deterrent for first-time online purchases.[6] Once a consumer has experience with a brand or product, he or she may be willing to rely on purely online information for subsequent on line purchases.

Conversely, when companies opérate in the upper "offline" quadrants (1 and 3), they give cus tomers direct access to product information via physical access to produets. This method of infor mation delivery is especially well-suited to retailing produets that have significant "high-touch" ele-ments, important service requirements or significant nondigital attributes. In fact, it is this very same point of strength of quadrant 1 retailing that makes retailers who only opérate there especially vulnera ble to consumers "showrooming" — examining merchandise onsite but purchasing at a lower price

online.[7] Mitigation or elimination of showrooming is a vital management objective for traditional retailers.[8] It is highly detrimental to the showroomed retailer if the consumer, after appropriating the information from that retailer, buys online from a competitor.

Thus, if quadrant 4 is well suited to selling prod ucís for which customers either have a fair degree of certainty about what to expect or can expect only limited valué from a live customer-service experience, and quadrant 1 is well suited to high-touch producís yet highly vulnerable to showrooming, this raises intriguing possibilities for hybrid experiences (quadrants 2 and 3). They can both enhance the customer experience and improve performance outcomes for retailers.

## Fulfillment: Delivery vs. Pickup

With regard to fulfillment, there are important differences in the customer experience and business impacts on the retailer between the quadrants on the left (1 and 2) and the quadrants on the right (3 and 4). From a consumer's point of view, obtaining a product *after a visit* to a physical location (store) has both advantages and disadvantages. The cus tomer does not have to pay for shipping or wait for delivery of the product; however, the consumer incurs travel costs. Similarly, delivery has both advantages and disadvantages for consumers. Dis advantages inelude waiting time (and delayed gratification) and perhaps shipping costs as well. Advantages inelude mitigation of travel costs and the ability to access produets that would not necessarily be displayed in a physical store.[9]

From the retailer's point of view, fulfilling orders in stores (quadrants 1 and 2) or via delivery (quadrants 3 and 4) pose very different challenges. When orders are fulfilled in stores, there are impor tant location and store-design decisions to be made. Stores have to be accessible to customers and large enough to hold inventory. These constraints can transíate into significant real estáte costs.

Furthermore, in order to fulfill transactions in stores, the retailer must carry the right produets in the right stores at the right time. In order to do that, the company has to decide which produets to carry in each brick-and-mortar retail location and also accurately forecast demand for each product and store — something that is notably harder to do on a per-store basis than at a higher level of aggregation.[10] Higher demand uncertainty at the store level results in higher supply-mismatch costs, which are then manifested through excess inventory or lost sales due to produets being out of stock.

Conversely, fulfilling orders via delivery (quad rants 3 and 4) relaxes some of the design constraints for the retailer's physical locations. First, fulfillment can be centralized from a distribution center located in a less expensive area, although some orders can be shipped from a conventional store. Second, central ized fulfillment makes forecasting demand easier because it allows forecasts to be made at a more aggregate level, reducing supply-demand mismatch costs.[11] This efficiency is especially important when variety is high (with a large number of SKUs) and the demand for each individual product islow.[12]

## Information Online, Fulfillment Offline

Crate & Barrel, based in Northbrook, Illinois, is a traditional retailer of fu rn iture and housewares with strength and heritage in quadrant 1 and an active presence in quadrant 4 — which makes it a retailer that offers predominantly "synchronized" experiences. Could it enhance its overall perfor mance though quadrant 2 strategies, which rest on *hybrid experiences?* To test the potential of one form of hybrid strategy, management implemented a "buy online, pick up in store" (BOPS) option at Crate & Barrel stores throughout the United States. Other retailers such as Toys"R" Us and The Home Depot have launched similar initiatives during recent years.[13]

Crate & Barrel has numerous stores located in the United States and Cañada, and the BOPS op tion was offered to shoppers in the United States only. To isolate the impact of BOPS, we looked for differences in shopper behavior (for example, sales levels for a particular product category or overall store traffic) between the two countries.[14] Since we controlled for other differences between the United States and Canadian stores, we could attribute any remaining differences in sales and store traffic to the availability of the BOPS option.

There are two reasons why BOPS, in theory, offers shoppers a compelling valué proposition.

First, they can very easily get accurate information about prices and availability of Ítems that they are interested in buying before placing their order. Second, since they can pick the ítem up, they get gratification from immediate access to the purchased product. Thus, BOPS eliminates a critical search friction for shoppers—wondering whether a particular item is available in a store and what it costs. BOPS also counters a key deficiency of the online shopping experience — waiting for purchased Ítems to be delivered. In a very real sense, BOPS gives shoppers the best of both worlds — full information delivered before purchase (no search friction) and immediate fulfíllment (no waiting for delivery).

Management's expectation was that post-BOPS, online sales in the United States would increase. Surprisingly, that didn't happen. In fact, online sales went *down,* even though traffic to the website went *up.* To understand why, note that most of the ítems sold at Crate & Barrel have nondigital, "touch-and-feel" attributes that are hard to communicate online. Henee, even though BOPS allowed shoppers to fully resolve uncertainty about price and availability prior to shopping, it did not allow them to resolve uncertainty about produets' nondigital attributes.

Nevertheless, overall sales at the *stores* went up. Shoppers, having confirmed that the produets they wanted were in stock and appropriately priced, went to the store to inspect and buy. BOPS removed search friction for information that can be efficiently communicated online (price and in-stock position) and eliminated post-purchase waiting time. The online purchase option could not, however, help customers elimínate uncertainty about nondigital attributes.

A variant of the BOPS shopping process is ROPO ("research online, purchase offline"), or "reverse showrooming." For instance, traditional retailers that commit to providing accurate price and inventory information online, and that otherwise engage customers effectively online as well, can see increased traffic and sales in their physical stores. Furthermore, in our experience, both BOPS and ROPO customers can, after visiting the store in person, generate incremental sales in product categories other than the one(s) that drove the initial visit.

## Information Offline, Fulfíllment Online

If it makes sense for Crate & Barrel to "move down" from quadrant 1 into quadrant 2 and start provid ing a richer online-information experience, it may also make sense for Warby Parker (and other ini - tially pure-play Internet retailers) to expand from quadrant 4 into quadrant 3. As we noted earlier, for produets that require service and/or have high number of touch-and-feel components, offline delivery of product information is likely to be valued by customers. There might be other benefits as well, including an increase in brand awareness and positive reinforcement of the brand's legitimacy.

Management at Warby Parker, well aware that many customers like to touch and feel eyewear prior to buying it, had, from the inception of their business, offered a sampling program called "Home Try-On," which allows customers to order five frames free of charge and keep them for five days, with free shipping both ways.[5] The site also offers a virtual try-on system in which customers can upload pictures of their faces and overlay different frames onto their photos. Still, management realized that these two channels might be insufficient for at least some segment of customers; henee, they opened a third channel — the inventory-only showroom. (Warby Parker also participates in quadrant 1 for part of its product line, offering in-store fulfíllment of sunglasses in their own-store retail locations in New York City, Boston and Los Angeles.)

Inventory-only showrooms are third-party locations (typically stores that sell apparel and accessories) that display the full line of Warby Parker frames. Customers can visit these stores, such as the partner showroom in Oíd City in Philadelphia, try the frames on and then have the product fulfilled via delivery just as if they had ordered online. The inventory-only showroom is an example of quad rant 3, as information is delivered offline, but product sales are fulfilled via delivery.

We wanted to understand the impact of these inventory-only showrooms on demand, brand awareness and product returns. To assess any potential marketing and operational efficiency benefits of this hybrid experience, we defined a "trading area" for the showroom (typically a 30-mile radius around the showroom) and analyzed the "natural


**Furniture and housewares retailer Crate & Barrel was able to drive economically significant offline increases in traffic and sales by providing accurate price and inventory information online.**

experiment" created when showrooms were opened. A naive approach to assess the impact would be to simply compare sales and returns in the trading-area región before and after the introduction of the showroom. This approach, however, would not account for other factors at the location that could also be driving sales and returns. Henee, we utilized an econometric method called differences-in-differences with propensity matching, in which we compared the difference in sales between a "treatment city" (a city with a showroom) and a "control city" (a city without a showroom), after adjusting for the fact that the locations with showrooms were deliberately chosen by the Warby Parker management team, rather than simply selected at random. Using the adjusted data, we then compared the dif ference between treatment- and control-location sales prior to the introduction of a showroom to the difference between treatment- and control-location sales after the showroom was opened.[16]

Our regression analyses highlighted several benefits of Warby Parker's showrooms. First, and perhaps not too surprising, *total* sales increased about 9% in the locations within the trading area of the show rooms. (Remember, this increase is relative to other locations that are "matched" in other ways but that do not have a showroom.) The company was able to expand its sales by providing information offline. Next, we found that website sales that had their origin in the showroom trading area (as measured by the ZIP code) increased significantly, too, by about 3.5%. An offline showroom thus appears to confer awareness and brand-legitimacy benefits such that new customers show up in the online channel.

For the sampling channel, or Home Try-On program, we analyzed not only sales but also the number of customers who tried the program. After the show room opened, sales through this channel decreased by 5.5% and the total number of customers trying the sampling program declined by 8%. So, while this channel now generated fewer sales, it became more efficient as the conversión from ordering try-ons to actual purchases increased significantly.

Henee, an online-first retailer that starts providing product information offline can see improvements in both realized demand and operational efficiency. A key efficiency for Warby Parker was higher conversión in the sampling program, but there were other efficiencies as well. In locations within the trading area of a showroom, online returns declined, as did the probability of individual customers placing múltiple Home Try-On orders. Thus, for an online retailer, adding showrooms is more than a mechanism for expanding awareness and total demand. It also allows customers to "sort" into their preferred channel on the basis of their need for prepurchase information.[17]

The same positive effeets can be tracked in temporary or "pop-up" stores. As we saw positive demand impaets for fixed showrooms, we expected to see sim ilar benefits from increasingly popular pop-up or movable stores as well.[18] Warby Parker, for example, has a retrofitted school bus that traveled throughout the United States for several months, making stops in numerous cities and towns.[19] In analyzing its effect, we found that in locations where the bus stopped, sales increased, both in total and through the website, implying that pop-up stores boost both sales and awareness. Short-term pop-up retail is evolving rapidly as new platforms emerge to facilitate it. An intriguing example is thestorefront.com, a website that "connects artists, designers, and retailers with beautiful, local retail space."[20]

## The Importance of Information for Customers

Product information gets delivered to potential customers not just by a retailer but also by other customers of that retailer. Managers need to recognize the importance of variation in physical geography and types of offline environments. Prior research has shown that online sales of commodity producís vary significantly with variations in real-world factors, such as population density and access to stores.[21] But we found an equally important impact on produets with nondigital attributes. This was reinforced through work we did with Bonobos.com, a men's fashion brand with e-commerce as its core distribution channel.

Bonobos, like Warby Parker, began life in quadrant 4 as a pure-play online retailer and later developed so-called offline "guideshops." These relatively small (typically about 1,200 square feet), high-service loca tions provide sufficient inventory for the customer to try on, but not to buy at the store and take home immediately. That is, they utilize online fulfillment in the same way that Warby Parker showrooms do.[22] This

quadrant 3 strategy has been highly effective for Bonobos, and aggressive expansión is planned.[23] Moreover, several Bonobos Ítems are available in Nordstrom department stores throughout the United States, and this traditional, quadrant 1 retailing has been important for Bonobos' growth.

Nevertheless, we speculated that offline delivery of information by *customers* might be a critical fac tor as well. We specifically focused on offline variation in what sociologists cali "social capital"— the extent to which colocated individuáis share information with, interact with and trust each other.[24] We examined online sales data from the inception of the Bonobos site in October 2007 and matched this data with data from the Social Capital Community Benchmark Survey, available through the Roper Center for Public Opinión Research at the University of Connecticut at Storrs.[25]

What we found was striking. First, our statistical analysis of the geographical distribution of sales implied that up to half of *all first-time* sales to new customers of Bonobos.com were partly influenced by "social learning." Second, sales grew at a faster rate in locations with greater levels of social capital. This second finding is quite subtle. It is not the case that higher levels of offline social capital, per se, spur online sales. Higher levels of social capital in a location make information transfer there more efficient — that is, what gets said locally is more reliable and believable in these locations than in locations with lower levels of social capital. Henee, when what is said is positive (as it was in the case of Bonobos), sales increase more quickly.[26]

Since it is not always possible or practical for managers to get access to academic dataseis like SCCBS, we also examined the ability of readily available proxy variables to capture the "offline information effect." As is turns out, the number of bars and liquor stores per capita in a location is a workable proxy for social capital among 25- to 45-year-old fashion-forward males (the Bonobos. com target customer). Holding everything else constant, online sales are higher in locations where this measure is higher.[27]

**Virtual Fitting Rooms Reduce Returns** Asnoted above, physical locations with "better" offline information transmission between existing and potential customers have higher online sales. More over, in physical locations with offline showrooms, retailers can benefit from lower rates of returned produets. These important informational benefits transíate to the online world, as we have also found that online sites with better information delivery can reduce product returns.

This is critical for sellers. While product returns have always been part of the traditional retail landscape (quadrant 1), the Internet channel has taken the challenge of returns to a completely new level. Andy Dunn, cofounder and CEO of Bonobos, notes, "Between gross revenue and net revenue, you typically have a meaningful returns line ítem."[28] In fact, the impact of returns on the bottom line of all online retailers is becoming more pronounced. The United Parcel Service, for instance, expected returns to in crease by 15% in the 2013 holiday season, relative to what they were the year before; by some estimates, one-third of all Internet sales get returned.[29]

"Fitting rooms" placed on websites are one poten tial antidote to the returns problem. Specifically, these are technologies that provide online customers with accurate fit information and size recommendations in advance of any buying decisión. In an ongoing research project with the virtual-fitting-room technology company Metail,[30] we explored whether the richer information delivered online with those type of tools results in higher sales and lower returns.

To conduct our tests, we randomly assigned cus tomers from a large online apparel retailer to one of two conditions: They either had access to the Metail virtual fitting tool, or they did not. We found that cus tomers with access to the virtual fitting tool had higher conversión rates and lower return rates than those cus tomers without access to it. Thus, higher-quality personalized information, even if delivered through an online channel, is a potentially powerful ally in one of most important battles in omnichannel retailing — namely, the fight to bring down product return rates.

## Serving the Omnichannel Customer

In a 2013 article in *MIT Sloan Management Review,* researchers Erik Brynjolfsson, Yu Jeffrey Hu and Mohammad S. Raman predicted: "As the retailing industry evolves toward a seamless 'omnichannel retailing' experience, the distinctions between physi cal and online will vanish, turning the world into a

showroom without walls."[3] We concur and think our article provides sellers with a framework for navigating this landscape.

We began this article describing a shopping process in which a customer undermined the efficiency of a company's existing information and fulfillment methods in order to get exactly what she wanted. The drive for a solution to such inefficiencies promoted the development of our information and fulfillment matrix — a customer-focused framework for articulating how information should be delivered (online or offline) and how demand should be filled (pickup or delivery).

We showed that a traditional retailer such as Crate & Barrel can realize considerable gains by improving its online information about nondigital attributes of producís. This gives the customer a reason and willingness to interact with the retailer outside the store environment and to initiate and partially complete a transaction online before entering the store and finishing it. By providing accurate price and inventory information online, the retailer was able to drive economically signifícant offline increases in traffic and sales.

Similarly, we demonstrated that an online-first retailer like Warby Parker can experience substantial benefits from an offline presence that simply showcases inventory. Offline showrooms deliver economically significant impacts on sales, returns, awareness and sampling efficiency in locations within the showrooms' trading areas. Furthermore, customers are able to choose the channel that best fits their needs, with those customers wanting to touch and feel before buying most likely to visit the showroom.

Like it or not, customers are omnichannel in their thinking and behavior. Sellers need to be as well. Omnichannel features initially perceived as "nice add-ons" are becoming "must-haves." The question for sellers is no longer whether to opérate an om nichannel strategy, but how to implement it most effectively. Our research underscores that the best sellers will win the omnichannel revolution by working across the permeable boundaries of information and fulfillment, offering the right combination of experiences for the customers that demand them.

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