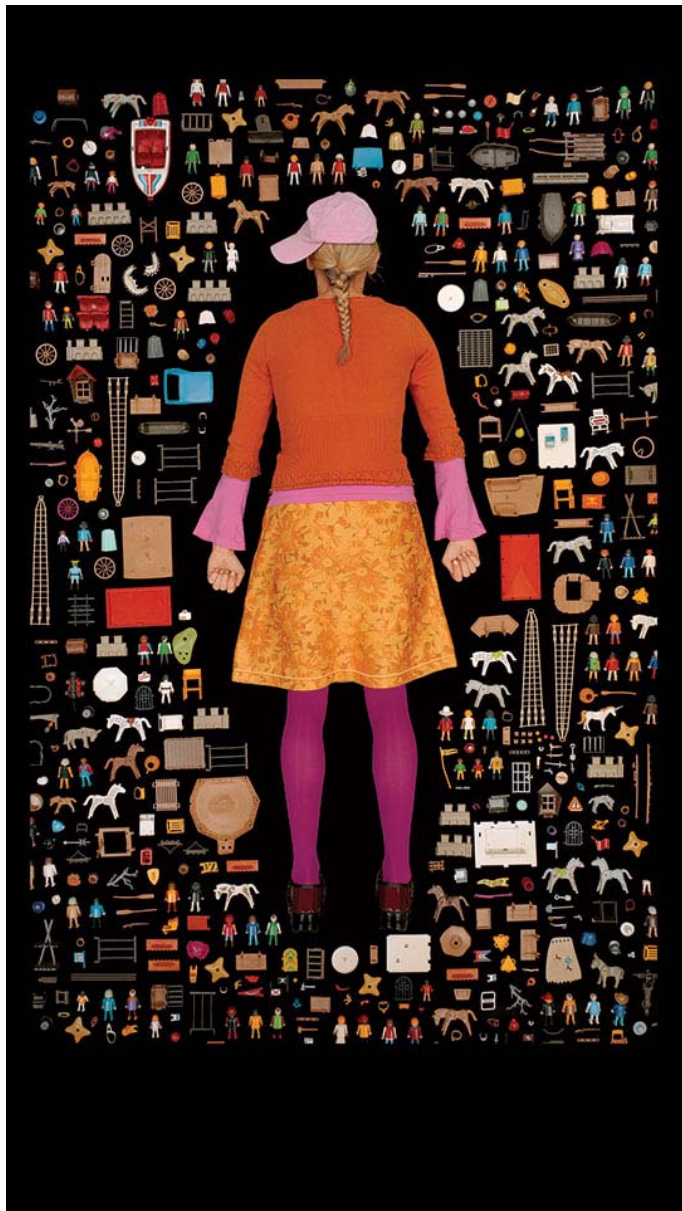


Know What Your Customers Want Before They Do

by Thomas H. Davenport, Leandro DalleMule, and John Lucker

FROM THE DECEMBER 2011 ISSUE



PHOTOGRAPHY: RACHEL PERRY WELTY AND YANCEY RICHARDSON GALLERY, NY

ARTWORK: RACHEL PERRY WELTY, LOST IN MY LIFE (PLAYMOBIL), 2010, PIGMENT PRINT

Shoppers once relied on a familiar salesperson—such as the proprietor of their neighborhood general store—to help them find just what they wanted. Drawing on what he knew or could quickly deduce about the customer, he would locate the perfect product and, often, suggest additional items the customer hadn't even thought of. It's a quaint scenario. Today's distracted consumers, bombarded with information and options, often struggle to find the products or services that will best meet their needs. The shorthanded and often poorly informed floor staff at many retailing sites can't begin to replicate the personal touch that shoppers once depended on—and consumers are still largely on their own when they shop online.

This sorry state of affairs is changing. Advances in information technology, data gathering, and analytics are making it possible to deliver something like—or perhaps even better than—the

proprietor's advice. Using increasingly granular data, from detailed demographics and psychographics to consumers' clickstreams on the web, businesses are starting to create highly customized offers that steer consumers to the "right" merchandise or services—at the right moment, at the right price, and in the right channel. These are called "next best offers." Consider Microsoft's success with e-mail offers for its search engine Bing. Those e-mails are tailored to the recipient at the moment they're opened. In 200 milliseconds—a lag imperceptible to the recipient—advanced analytics software assembles an offer based on real-time information about him or her: data including location, age, gender, and online activity both historical and immediately preceding, along with the most recent responses of other customers. These ads have lifted conversion rates by as much as 70%—dramatically more than similar but uncustomized marketing efforts.

What Makes an NBO?

"Next best offer" is increasingly used to refer to a proposal customized on the basis of

The consumer's attributes and behaviors (demographics, shopping history)

The purchase context (bricks and mortar, online)

Product or service characteristics (shoe style, type of mortgage)

The organization's strategic goals (increase sales, build customer loyalty)

NBOs are most often designed to inspire a purchase, drive loyalty, or both. They can consist of

Products (a coupon for diapers)

Services (a discount on a spa visit)

Information (Google ads to click on)

Relationships (LinkedIn and Facebook recommendations)

Despite the name, an NBO may in fact be an initial engagement. And whether the

The technologies and strategies for crafting next best offers are evolving, but businesses that wait to exploit them will see their customers defect to competitors that take the lead. Microsoft is just one example; other companies, too, are revealing the business potential of well-crafted NBOs. But in our research on NBO strategies in dozens of retail, software, financial services, and other companies, which included interviews with executives at 15 firms in the vanguard, we found that if NBOs are done at all, they're often done poorly. Most are indiscriminate or ill-targeted—pitches to customers who have already bought the offering, for example. One retail bank discovered that its NBOs were more likely to create ill will than to increase sales.

Companies can pursue myriad good goals using customer analytics, but NBO programs provide perhaps the greatest value in terms of both potential ROI and enhanced competitiveness. In this article we provide a framework for crafting

customer relationship is new or ongoing, the NBO is intended to be a “best offer.”

NBOs. You may not be able to undertake all the steps right away, but progress on each will be necessary at some point to improve your offers.

Building the Next Best Offer

Exemplary companies build or sharpen an NBO strategy through four broad activities:



1. Defining objectives

Craft NBOs to achieve specific goals, such as attracting new customers or increasing sales, loyalty, or share of wallet. Be ready to modify your objectives to exploit changing circumstances.

2. Gathering data

Collect detailed data about customers (demo- graphics and psychographics; purchase history; social, mobile, and location information), your offerings (product attributes, profitability, availability), and purchase context (customer's contact channel, proximity, the time of day or week).

3. Analyzing and executing

Use statistical analysis, predictive modeling, and other tools to match customers and offers. Use business rules to guide what offers are made under what

circumstances. Carefully match offers and channels. Make offers sparingly, time them deliberately, and monitor contact frequency.

4. Learning and evolving

Think of every offer as a test. Incorporate data on customers' responses in follow-on offers. Formulate rules of thumb for designing new offers that are based on the performance of previous ones.

Define Objectives

Many organizations flounder in their NBO efforts not because they lack analytics capability but because they lack clear objectives. So the first question is, What do you want to achieve? Increased revenues? Increased customer loyalty? A greater share of wallet? New customers?

The UK-based retailer Tesco has focused its NBO strategy on increasing sales to regular customers and enhancing loyalty with targeted coupon

offers delivered through its Clubcard program. As Roland Rust and colleagues have described (“Rethinking Marketing,” HBR January–February 2010), Tesco uses Clubcard to track which stores customers visit, what they buy, and how they pay. This has enabled the retailer to adjust merchandise for local tastes and to customize offerings at the individual level across a variety of store formats, from hypermarkets to neighborhood shops. For example, Clubcard shoppers who buy diapers for the first time at a Tesco store are mailed coupons not only for baby wipes and toys but also for beer. (Data analysis revealed that new fathers tend to buy more beer, because they are spending less time at the pub.) More recently, Tesco has experimented with “flash sales” that as much as triple the redemption value of certain Clubcard coupons—in essence making its best offer even better for selected customers. A countdown mechanism shows how quickly time or products are running out, building tension and driving responses. Some of these offers have sold out in 90 minutes.

Tesco's NBO strategy seeks to expand the range of customers' purchases, but it also targets regular customers with deals on products they usually buy. As a result of its carefully crafted, creatively executed offers, Tesco and its in-house consultant dunnhumby achieve redemption rates ranging from 8% to 14%—far higher than the 1% or 2% seen elsewhere in the grocery industry. Microsoft had a very different set of objectives for its Bing NBO: getting new customers to try the service, download it to their smartphones, install the Bing search bar in their browsers, and make it their default search engine.

Starting with a clear objective is essential. So is being flexible about modifying it as needed. The

low-cost DVD rental company Redbox initially made e-mail and internet coupon site offers intended to familiarize consumers with its kiosks. Redbox kiosks were a new retail concept, but in time people became accustomed to automated movie rentals. As the business grew, the company's executives realized that to increase profits while maintaining the low-cost model, they needed to persuade customers to rent more than one DVD per visit. So they shifted the emphasis of their NBO strategy from attracting new customers to discounting multiple rentals.

Gather Data

To create an effective NBO, you must collect and integrate detailed data about your customers, your offerings, and the circumstances in which purchases are made.

Know your customers.

Information valuable for tailoring NBOs can be relatively basic and easily acquired or derived: age, gender, number of children, residential address, income or assets, and psychographic lifestyle and behavior data. Previous purchases are often the single best guide to what a customer will buy next, but that information may be harder to capture, particularly from offline channels. Loyalty programs like Tesco's can be a powerful tool for tracking consumers' buying patterns.

Even as companies work (and sometimes struggle) to acquire these familiar kinds of customer data, the growing availability of social, mobile, and location (SoMoLo) information creates major new data sets to be mined. Companies are beginning to craft offers based on where a customer is at any given moment, what his social media posts say about his interests, and even what his friends are buying or discussing online.

One example is Foursquare, which makes customized offers according to how many times consumers have "checked in" to a certain retail store. Another is Walmart, which acquired the social media technology start-up Kosmix to join its newly formed digital strategy unit, @WalmartLabs, in capitalizing on consumer SoMoLo data for its offers. Among the unit's projects is finding ways to predict shoppers' Walmart.com purchases on the basis of their social media interests. Walmart is also looking into location-based technologies that will help customers find products in its cavernous stores. The apparel retailer H&M has partnered with the online game MyTown to gather and use information on customer location. If potential customers are playing the game on a mobile device near an H&M store and check in, H&M rewards them with virtual clothing and points; if they scan

promoted products in the store, it enters them in a sweepstakes. Early results show that of 700,000 customers who checked in online, 300,000 went into the store and scanned an item.

Many retailers focus on how to use customers' location information in real time; where the customers have been can also reveal a lot about them. In the United States alone, mobile devices send about 600 billion geospatially tagged data feeds back to telecommunications providers every day. An application developed by the software analytics company Sense Networks can compare a consumer's movements with billions of data points on the movements and attributes of others. Using this location history, it can estimate the consumer's age, travel style, level of wealth, and next likely location, among other things. The implications for creating highly customized NBOs are clear.

Know your offerings.

Unless a company has detailed information about its own products or services, it will have trouble determining which offerings might appeal most to a customer. For some products, such as movies, third-party databases supply product attributes, and companies that rent or sell movies can surmise that if you liked one movie with a particular actor or plot type, you will probably like another. But in other retail industries, such as apparel and groceries, compiling product attributes is much more difficult. Manufacturers don't uniformly classify a sweater as "fashion forward" or "traditional," for example. They don't even have clear and standardized color categories. So retailers must spend a lot of time and effort capturing product attributes on their own. Zappos has three departments working to optimize customers' searches and create the most effective offers for its shoes. Even when the attributes are narrowed down to product type, style, color, brand, and price, a shoe might have any of more than 40 material patterns—pearlized, patchwork, pebbled, pinstripe, paisley, polka dot, or plaid, to name just those beginning with "p." Without a system for such detailed classification of product attributes, Zappos wouldn't know that a customer had often bought paisley in the past, so it wouldn't know that it should include paisley products in NBOs to that customer.

Similarly, without good classification systems, grocers can't easily determine what products will lure adventurous, health-conscious, or penny-pinching customers. When Tesco wants to identify products that appeal to adventurous palates, it will start with something that is widely agreed to be a daring choice in a given country—Thai green curry paste in the UK, perhaps—and then analyze the other purchases that buyers of the daring choice make. If customers who buy curry paste also frequently buy squid or wild rocket (arugula) pesto, these products have a high relationship

coefficient.

Know the purchase context.

Finally, NBOs must take into account factors such as the channel through which a customer is making contact with a business (face-to-face, on the phone, by e-mail, on the web), the reason for contact and its circumstances, and even voice volume and pitch, indicating whether the customer is calm or upset. (Emotion-detection software is proving valuable for the last factor.) Bank of America has learned that mortgage offers presented through an ATM at the moment of customer contact don't work well because customers have neither the time nor the inclination to engage with them, whereas they might be receptive to the same offers during a walk-in. Likewise, someone who calls customer service with a complaint is unlikely to respond to a product offer, though he or she might welcome it by e-mail at another time.

The weather, the time of day or day of the week, and whether or not a customer is accompanied may affect the design of an offer.

Other contextual factors that may affect the design of an NBO—and a consumer's response to it—include the weather, the time of day or the day of the week, and whether a customer is alone or accompanied. Although clickstream or recent online purchase data are often the most relevant in guiding an online NBO strategy, in some cases, such as air-travel ticket pricing, time and day are important: Airlines can hike prices on a Sunday evening, because more people search then than, say, midday during the week. A Chinese shoe retailer we studied is testing offers that target primary buyers' companions. When a woman walks into one of its stores with her husband, she is usually the primary buyer, and the retailer's NBO is usually a relatively inexpensive item for the husband. The choice of what to offer him arises from the insight that men who accompany their wives shopping but are not actively shopping themselves are more price sensitive than solo husbands who are searching for a specific product.

Of course, countless other contextual factors depend on the nature of the business and its customers.

Analyze and Execute

The earliest predictive NBOs were created by Amazon and other online companies that developed “people who bought this also bought that” offers based on relatively simple cross-purchase correlations; they didn’t depend on substantial knowledge of the customer or product attributes, and thus were rather a blunt instrument. Somewhat more targeted offers are based on a customer’s own past purchase behavior, but even those are famously indiscriminate. If you buy a book or a CD for a friend who doesn’t share your tastes, that can easily skew the future offers you receive.

Companies that have systematically gathered information about their customers, product attributes, and purchase contexts can make much more sophisticated and effective offers. Statistical analysis and predictive modeling can create a treasure trove of synthetic data from these raw information sources to, for example, gauge a customer’s likelihood of responding to a discounted cross-sell offer delivered on her mobile device. Behavioral segmentation and other advanced data analytics that simultaneously account for customer demographics, attitudes, buying patterns, and related factors can help identify those customers who are most likely to defect. Armed with this information and a customer’s expected customer lifetime value, an organization can determine whether its NBO to that customer should encourage or discourage defection. (A detailed discussion of marketing data analytics is beyond the scope of this article, but the 2002 book *Marketing Engineering*, by Gary L. Lilien and Arvind Rangaswamy, offers a robust overview of key analytical, quantitative, and computer modeling techniques.)

Although such analytics can yield a profusion of potentially effective offers, business rules govern the next step. When an analysis shows that a customer is equally likely to purchase any of several products, a rule might determine which offer is made. Or it might limit the overall contact frequency for a customer if analyses have shown that too much contact reduces response rates. These rules tend to go beyond the logic of predictive models to serve broad strategic goals—such as putting increasing customer loyalty above maximizing purchases.

A carefully crafted NBO is only as good as its delivery. Put another way, a brilliant e-mail NBO that never gets opened might as well not exist. Should the NBO be delivered face-to-face? Presented at an in-store kiosk? Sent to a mobile device? Printed on a register receipt? Often the answer is relatively straightforward: The channel through which the customer made contact is the appropriate channel for delivering the NBO. For example, a CVS customer who scans her ExtraCare loyalty card at an in-store kiosk can instantly receive customized coupons.

There are times, however, when the inbound and outbound channels should differ. A complex offer shouldn't be delivered through a simple channel. Recall Bank of America's experience with mortgage offers: The inbound channel—the ATM—was quickly found to be a poor outbound channel, because mortgages are just too complicated for that setting. Similarly, many call-center reps don't understand customer needs and product details well enough to make effective offers—particularly when the reps' primary purpose is to complete simple sales or service transactions.

Companies often test offers through multiple channels to find the most efficient one. At CVS, ExtraCare offers are delivered not only through kiosks but also on register receipts, by e-mail and targeted circulars, and, recently, via coupons sent directly to customers' mobile phones. Qdoba Mexican Grill, a quick-serve franchise, is expanding its loyalty program by delivering coupons to customers' smartphones at certain times of the day or week to increase sales and smooth demand. Late-night campaigns near universities have seen a nearly 40% redemption rate, whereas redemption rates average 16% for Qdoba's overall program. Starbucks uses at least 10 online channels to deliver targeted offers, gauge customer satisfaction and reaction, develop products, and enhance brand advocacy. For example, its smartphone app allows customers to receive tailored promotions for food, drinks, and merchandise based on their SoLoMo information.

Upscale retailers and financial services firms find that a human being is often the best channel for delivering offers.

Nordstrom and other upscale retailers, and financial services firms with wealthy clients, invest heavily in their salespeople's product knowledge and ability to understand customers' needs and build relationships. For these businesses, a human being is often the best channel for delivering offers. Many organizations devise multiple offers and sort them according to predictive models that rank a customer's propensity to accept them on the basis of previous purchases or other data. Salespeople or customer service reps can select from among these offers in real time, guided by their dialogue with the customer, the customer's perceived appetite for a given offer, and even the comfort level between the customer and the salesperson. Combining human judgment with predictive models can be more effective than simply following a model's recommendations. For example, insisting that a rep deliver a specific offer in every case may actually reduce both

customers' likelihood of accepting the offer and their postpurchase satisfaction. The investment firm T. Rowe Price provides call-center representatives with targeted offers, but it has concluded that if a rep delivers the offers in more than 50% of interactions, he or she probably isn't tuning in to customers' needs.

Learn and Evolve

Creating NBOs is an inexact but constantly improving science. Like any science, it requires experimentation. Some offers will work better than others; companies must measure the performance of each and apply the resulting lessons. As one CVS executive said to us, "Think of every offer as a test."

Companies can develop rules of thumb from their NBOs' performance to guide the creation of future offers—until new data require a modification of the rules. These rules will differ from one company to the next. In our research we identified some that leading companies use:

Footlocker:

Promote only fashion-forward shoes through social media.

CVS:

Provide discounts on things a customer has bought previously.

Sam's Club:

Provide individually relevant offers for categories in which a customer has not yet purchased, and reward customer loyalty.

Nordstrom:

Provide offers through sales associates in face-to-face customer interactions.

Rules of thumb should be derived from data-driven and fact-based analyses, not convention or lore. The rules above have been tested, but they will need to be challenged and retested over time to ensure continued effectiveness.

Meanwhile, legal, ethical, and regulatory issues associated with NBO strategies are evolving fast, as

the collection and use of customer data become increasingly sophisticated. When companies enthusiastically experiment with NBOs, they should be wary of unwittingly crossing legal or ethical boundaries.

It would be hard for any company to incorporate every possible customer, product, and context variable into an NBO model, but no retailer should fail to gather basic demographics, psychographics, and customer purchase histories. Most retailers need to accelerate their work in this area: Their customers are not impressed by the quality or the value of offers thus far. Variables and available delivery channels will only grow in number; companies that aren't rapidly improving their offers will just fall further behind.

A version of this article appeared in the December 2011 issue of *Harvard Business Review*.



Thomas H. Davenport is the President's Distinguished Professor in Management and Information Technology at Babson College, a research fellow at the MIT Initiative on the Digital Economy, and a senior adviser at Deloitte Analytics. Author of over a dozen management books, his latest is *Only Humans Need Apply: Winners and Losers in the Age of Smart Machines*.

Leandro DalleMule is the chief data officer at AIG.

John Lucker is a principal at Deloitte Consulting LLP, where he is a leader of Deloitte Analytics in the U.S. and of advanced analytics and modeling globally.

This article is about **CUSTOMER SERVICE**

 FOLLOW THIS TOPIC

Related Topics: DATA | MARKETING | SALES | ANALYTICS | RETAIL & CONSUMER GOODS

Comments

Leave a Comment

POST

0 COMMENTS

▼ [JOIN THE CONVERSATION](#)

POSTING GUIDELINES

We hope the conversations that take place on HBR.org will be energetic, constructive, and thought-provoking. To comment, readers must sign in or register. And to ensure the quality of the discussion, our moderating team will review all comments and may edit them for clarity, length, and relevance. Comments that are overly promotional, mean-spirited, or off-topic may be deleted per the moderators' judgment. All postings become the property of Harvard Business Publishing.