SPECIAL REPORT

Inside Overstock's Transition to Data-Driven Marketing

By Susan Tunick Reiter

As everyone in retail and ecommerce is fully aware, changes abound within the industry. To accommodate these and future shifts while creating a personalized, data-driven methodology for meeting customers' needs, Overstock needed to move to a data-driven marketing approach.

CHANGES ABOUND IN RETAIL & ECOMMERCE

Over the past few decades, the retail landscape has evolved so drastically that traditional retailing would be barely recognizable today. Used to be, you walked into a store, selected your merchandise, paid for your purchase with cash and you were done—the transaction was complete.
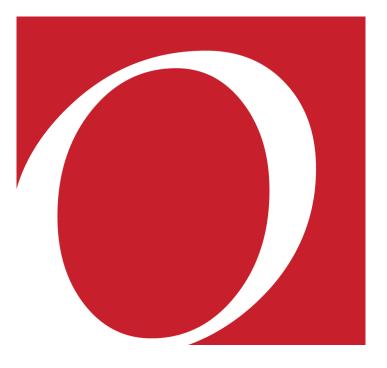
The credit card revolution altered that dynamic—it became an important milestone in consumers' and retailers' ability to conduct transactions. Now fast-forward to the dot-com boom: Ecommerce became a new buzzword and a different way of shopping was born, with consumers browsing and purchasing from the convenience and comfort of their homes.

To stay competitive, explains Bhargav Shah, Overstock's CIO, the company had to build a system that would not only react to customer needs but actually be able to drive the experience.

FUNDAMENTAL SHIFT WITH SMARTPHONES

The most dramatic evolution is tied to the development and widespread adoption of smartphones, says Shah. In fact, he cites statistics showing growth from 1 billion+ PC users to more than 5 billion smartphone users today. Consumers now have all the information they need in the palm of their hands, he says, and they want to know when the product will be available, when it will ship and when it will be received.

Smartphones are likewise tied to the skyrocketing growth of social media, also adding competitive demands on consumers' time. For that reason, Shah calls social media networks such as Facebook, with its millions of active members, "weapons of mass distraction."

WHAT THIS MEANS TO OVERSTOCK

With so many competing demands on consumers' time, the company had to find better ways to meet increasing customer expectations.

- **Search has to be intuitive.** If not, shoppers will quickly abandon the site and move to another.
- **Product information need to be accurate and timely.** Consumers tend to trust customer reviews, buyers' guides and blogs more than they do the manufacturer's description of an item.

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- **Personalization must be geared toward the customer.** Online retailers must anticipate customers' needs based on preferences, demographics and geography—the "Netflix model," according to Shah. Overstock also had to develop more innovative ways to engage its customers.
- **The cross-channel experience has to be seamless.** This includes a fundamental shift to focus on mobile apps.
- **Push notifications must be more relevant.** These have to feature personalization and include reminders, and deep-linking from any device is an absolute necessity.
- **Loyalty programs play a more critical role.** These enable Overstock to gain more precise, personalized data and insights, which in turn create a more engaging experience to retain customers.

> " To create a more engaging customer experience, Overstock had to identify specific facets of individual customers. "

OPTIMIZING THE EXPERIENCE ACROSS CHANNELS AND DEVICES

Of course, smartphones are just one channel—consumers often have multiple devices and various ways to interact with the online retailer. Overstock quickly discovered that to provide a more engaging customer experience, they had to identify specific facets of an individual customer, including:

- What segment does he belong in?
- What categories does he have an affinity for?
- What channels is he responsive to? Does he prefer mobile vs. online? Apps vs. browsers?
- What devices does he use to interact? Does he primarily use a PC, smartphone or tablet?
- Is he a loyalty club member?
- Has he interacted with Overstock's customer care team?
- Has he left product reviews or social media feedback about Overstock?

This and other information is processed through a decisioning engine that helps prioritize Overstock's offers and messaging.

THE EVOLUTION FUNNEL
The Journey From Reactive to Proactive

Shah says to begin the journey of influencing the customer experience through data-driven marketing, one must view it as a long-term commitment with smaller wins and milestones along the way.

He sees the following steps as part of the evolution funnel:

1. **Data—Data Gathering:** This includes current transaction, browsing behavior and customer center comments. It isn't really useful until you can model and glean patterns.
2. **Intelligence—Data Modeling.** The corporate memory of all interactions, including contact history, scores/patterns, social activity and important cues, such as whether the customer typically waits for discounts.
3. **Knowledge—Enacting:** This intelligence can be used to influence behavior at the aggregate level.
4. **Action—Customer Experience.** You can segment and personalize here to specific customer experiences.

To get started, Shah suggests companies should start small by going after the low-hanging fruit. Identify the desired customer action/experience, then work your way backwards to reverse engineer what you need to do to reach your goal.

Naturally, a massive transition such as this requires a major organizational/cultural change. By starting small, a company can demonstrate the results of a customer experience, such as X dollars invested led to Y dollars in increased sales.

Return on investment (ROI) can be difficult to measure, says Shah, but can be seen through several indicators such as increases in:

- Conversion percentage based on personalization
- Number of site visits
- Channel performance
- New categories viewed

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THE 360-DEGREE CUSTOMER VIEW

To understand Overstock's customers, the company needed to build a comprehensive view—a huge undertaking, says Shah.

The comprehensive solution involved gathering information from many of the company's business units and functional groups.

- Customer segments, recommendations and scores
- Marketing
- Site-related activities
- Warehouse locations
- Customer care communications or concerns
- Product costs, price and elasticity, recommendations, feedback
- Behavioral data
- Other potential data such as history, demographics, social media interaction

THE ROLE OF TECHNOLOGY

Given the enormous amount of data Overstock had gathered—measured in terabytes—the company needed technology to scour through the data to gain meaningful insights. It had to be able to accommodate both structured data (e.g., purchase history) with unstructured data (e.g., social media).

Overstock made the decision to transition to Teradata as its integrated data warehouse due to Teradata's unified data architecture (UDA). This allows the platform to pull data from disparate sources and integrate with other data platforms such as hadoop, which can accommodate less structured data.

BIG DATA DEFINED

Shah defines Big Data as the "three Vs":

- **Volume:** The amount of data collected/available. Used to be measured in megabytes and gigabytes, now measured in terabytes and petabytes.
- **Variety:** The various types of structured and unstructured data. Historically, the data used to fit nicely in relational databases but with social media, blogging, ad hoc chats with customer service, etc., it can no longer be structured in rows and columns.
- **Velocity:** The speed at which the data is changing and will continue to change into the future.

ESTABLISHING THE CUSTOMER DATA MODEL

Because organizing this vast amount of data is a huge undertaking, Overstock determined it needed to prepare a customer data model that emphasized data security.

In many companies, a customer ID is based on the customer's email address. But what if the person has more than one email address? Those can't be treated as two different people. The customer ID must consider the customer as an individual ID rather than a single email, says Shah.

Overstock's customer data model also recognizes that individuals can be members of the same household, therefore a household ID must be generated. Shah uses an example of a wife buying a sofa, so it wouldn't make sense to send a promotion to her husband to purchase another sofa.

In addition, mobile device and online activity are also be associated with the customer data model.

STITCHING IT ALL TOGETHER VIA HUB-AND-SPOKE MODEL

To best organize this enormous amount of data into a manageable format, many data architects, including Shah, recommend a hub-and-spoke model.

- The hub contains all the relevant information gathered through the 360-degree view, such as customer ID, purchases, customer service interactions, Club O membership, etc.
- The spokes consist of the different channels, products, recommendations, social media involvement, etc.

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