

#### Introduction

Marketers have used predictive modeling for decades. Applications such as response models and media mix optimization have reliably produced 20 to 30% improvements in return on investment. Yet, valuable as they are, these benefits have been marginal improvements in core marketing operations. Marketers could achieve acceptable results using manual techniques or doing without them altogether.

This isn't the case in other applications. Fraud detection during credit card transactions, for example, is only possible using predictive models to identify questionable behaviors in real time. Human analysts could not react quickly enough to intervene as the interactions occur. Similarly, online merchants like Amazon.com gain essential profits from instant, personalized product recommendations based on predictive analytics. Airlines are critically dependent on yield optimization systems that adjust prices to fill seats as profitably as possible.

Even within marketing, some activities are also based on predictive techniques. Real time bidding for online advertising could not exist without models that estimate the value of each ad impression in a split second and constantly adjust their estimates based on results and market conditions. Search engine pay-per-click advertising is also dependent on predictive models to determine which ads to present for each keyword, although in this case it's companies like Google and Yahoo! doing the calculations rather than the advertisers.

What these situations have in common is huge quantities of data, complex relationships between data and results, and the need for instant reactions. As the digital economy grows, more marketing situations will fit that description and more applications will have predictive modeling at their core. Marketers will eventually reach a tipping point where predictive modeling graduates from a marginal performance enhancer to an essential technology. Some industries may have already passed this point without realizing it. This state, where predictive modeling drives core marketing processes, can be called predictive marketing.

## Why the Time for Predictive Marketing Is Now

Skeptics might rightly question whether predictive marketing is really the wave of the future or just the latest industry buzz word. Certainly the long history of limited adoption for predictive technology suggests that caution is justified. But conditions do seem to be ripe for fast acceleration:

more data. "Big data" may be this year's cliché of the century, but it's still true
that marketers have much more information available than ever. Sources include
not just online behaviors such as Web visits, social media posts, and email clicks,
but also offline transactions, commercially-assembled customer profiles, and
automated products that connect with their manufacturers. Related systems for

customer data management make it easier to assemble this data into usable information that's easily accessible.

- better predictive technology. The need for skilled statisticians has been a major barrier to use of predictive modeling. Today, advances in machine learning increasingly allow nearly or completely automated systems to prepare data, build models, deploy scores, and learn from results in minutes or hours rather than weeks or months. New technologies can also deal with unstructured data such as natural language and video, make it easier to understand results, and make predictions other than whether someone will respond to an offer.
- new applications. New products and channels present new opportunities that
  only predictive marketing can exploit. Mobile devices, social media, locationbased messaging, and Internet-connected products all offer new ways to reach
  customers before, during, and after they make a purchase. But all create on
  massive data streams that must be monitored continuously to identify fleeting
  opportunities and react effectively.
- customer expectations. Companies like Amazon, Apple, and Virgin Air have trained their customers to expect excellent treatment that meets needs they didn't know they had. Business buyers carry those same expectations into their professional lives. Predictive modeling is the key to many applications that ensure every customer gets the treatment they feel they deserve.
- platforms. Predictive modeling applications have traditionally been isolated systems built by extracting data, manipulating it, and producing lists that were fed back to corporate applications. This meant that each new application was largely built from scratch. Today's predictive applications increasingly draw on a single, integrated customer data platform that can support multiple applications with minimal incremental investment. This is a key to the "tipping point" effect that accelerates conversion to a predictive marketing environment.

## **Applying Predictive Marketing to B2B**

As we've seen, there are some marketing tasks that can only be achieved using predictive models, such as real time bidding for ads and personalized product recommendations. There are many others which can be done manually but where modeling is more effective. Which you do first depends on your business situation: you'll want applications that add immediate value as well as creating a foundation for future development. As predictive marketing becomes more common, you'll move towards deploying them all.

 Find new prospects. Marketers can scan their own databases plus external sources, both public and

#### **DocuSign Finds the Best Prospects**

DocuSign helps millions of customers securely sign, send and manage documents. It used predictive modeling to score its 13 million prospects. It then contacted those most likely to buy, generating a 10x improvement in engagement rate, to 23.8%, and more than \$1 million in incremental customer value. Read the study.

private, to find names of promising new prospects or to enhance their information about known prospects. Internal databases contain lists of current customers which modeling tools can use to identify the characteristics that best predict future purchases, both by new prospects and by prospects who are already in

company systems but haven't yet purchased. External sources can provide more details about companies and individuals, and are especially useful at identifying opportunity flags such as a business expansion, new job posts, or change in management. It requires predictive modeling technology to sort through thousands of signals to determine which are actually good indicators of future behavior.

- Lead scoring. This is probably the best known use of predictive modeling for B2B marketers. Lead scores use information about known prospects to estimate
  - their likelihood of taking a desired action. The predicted action is usually purchase intent, but could be another measure such as lifetime revenue, profitability, promotion response, or sales acceptance. Scores are used by marketing departments to send leads to different campaigns and to advance them within campaigns and by sales departments to prioritize leads for sales contact and follow-up. Model-based scoring is almost always more accurate than manually-built scoring formulas, although it's important to educate users about the model inputs and approach so they have confidence in the machine-generated scores.
- Segmentation. Marketing and sales departments can use models to place individuals into groups, personas, and/or sales stages based on company characteristics, personal interests, motivators, or role in the purchase process. These segmentations can be used to assign leads to campaigns, to select marketing approaches or product families, and to guide lead scoring. Segments such as persona are largely static while others such as sales stage or engagement level are designed to change over time. As with lead scoring formulas, model-driven segmentations tend to be more reliable than manually-built segment definitions because the models can take into account more data, are more able to see subtle relationships among data elements, and are less subject to preconceived notions.

#### netFactor Segments Its Leads

netFactor provides clients with actionable intelligence and lead generation from anonymous Web site visitors. It used predictive modeling to segment its own database by prospect value and persona. It then created marketing programs for each persona, yielding a 5x increase in engagement. Read the study.

#### **SmartBear Matches Leads to Products**

SmartBear Software offers a dozen software products for different types of users and companies. A predictive model with a combination of internal and external data found the best product for the 40% of its leads that accounted for 95% of wins. This allows marketing and sales to concentrate resources on the most productive opportunities and to reactivate promising leads that would otherwise have been discarded. Read the study.

Recommendations. Consumer marketers often use predictive models to select
the best product or offer for each customer. Models to do this are designed to
find the best choice among hundreds or thousands of options, which requires a
different approach from selecting among a handful of segments or campaigns.

Recommendation models often combine a response prediction with other considerations such as offer profitability, long-term impact, value of introducing

customers to new categories, and inventory levels. Business marketers typically have fewer products than consumer marketers, but may still need a recommendation model to select the best option or to help encourage specific goals such as cross sell, upsell, or renewal.

- Contact methods. Models can examine past behaviors and other indicators to predict the most effective promotion channels and contact frequency for each individual. As with product recommendations, such models can look beyond response rate to consider other factors such as the cost per contact in different channels and when additional contacts will annoy the
  - customer and depress future response. Contact optimization uses predictions as inputs to identify the most productive use of limited sales or call center resources and to ensure that individuals receive the most effective contact when the total contacts per individual are limited.

### Predictive Models Speed Service for Cincinnati Bell

Cincinnati Bell was spending more than\$10 million each year in overtime for service technicians. Using predictive models to estimate the time to complete each service call, the company was able to assign technicians more efficiently, cutting overtime by 20% and give customers a more accurate estimate of when the technician would be at their site. Read the study.

- Churn prediction. Models can identify the customers most at risk for not renewing the contracts and can also go a step further to identify which customers are likely to respond to special renewal incentives. This second level of analysis avoids offering incentives to customers who are likely to renew anyway or to customers who will not renew even with an incentive. Models can also identify segments where a renewal incentive will decrease renewal rates by reminding customers they have an option to quit.
- Sales applications. Sales departments can use the same lead scoring, segmentation, and recommendation models are marketers. But the outputs must be integrated with sales systems such as CRM so they are immediately available to sales people as they plan their activities and interact with customers. Predictive models can also issue alerts when sales leads take actions that indicate a significant change in buyer intentions.
- Service and support needs. Customer management teams can use models to
  estimate customer value, to identify customers likely to have future problems,
  and to predict the results of different service and support treatments. This
  ensures that the most valuable customers get the highest priority and that
  interventions are cost-effective in terms of retention and future revenues.
  Predictive models can also help managers improve the efficiency of service and
  support operations.
- Risk and fraud detection. Modeling systems can be fed examples of past situations involving losses or fraud, such as unpaid invoices or unlicensed use of software products. The resulting models can be used to limit risk and to flag

transactions for closer examination. Beyond reducing direct costs from losses, such models allow more generous and less costly treatment of everyone else, increasing total profits significantly.

Marketing measurement. Models can predict immediate response to a marketing message, the long-term impact on customer behavior, and incremental impact of multiple messages. These predictions let marketers select the best message for each individual within a campaign, to predict the aggregate impact of each campaign, and identify the optimal mix of marketing programs. Optimization models are usually accompanied by simulation systems that project the results from alternative scenarios describing different program combinations. Incremental return on investment – the Holy Grail of marketing measurement – can only be estimated using predictive models as inputs.

#### Conclusion

Not so long ago, predictive modeling was a luxury item: a sophisticated tool used by big companies to squeeze another five or ten percent improvement from selected marketing programs. Today, it is rapidly becoming something that every company needs to survive. The change is being driven by the speed of business. Shifts that formerly took weeks, months, or years can now occur in days, hours, or minutes as news flashes through online channels and social networks and customers change their behaviors in response. New products, new competitors, new messages, new applications, new problems, and new media can appear overnight. Hints about them are all buried in the "big data" of social media, Web behaviors, customer transactions, and product use, but can only be uncovered through techniques that work with big data volumes at big data velocity.

Predictive analytics are a critical component of sifting through this data to quickly extract meaningful results. Companies that knit predictive modeling into a seamless web of instant discovery and response –the essence of predictive marketing – will gain an ever-larger advantage over companies that fail to keep pace. Eventually, and maybe sooner than you may think, the lead will be insurmountable. Marketers must recognize this trajectory and begin building a solid foundation today for their predictive marketing future.

#### **About Raab Associates Inc.**

Raab Associates Inc. is a consultancy specializing in marketing technology and analytics. Typical engagements include business needs assessment, technology audits, vendor selection, results analysis, and dashboard development. The company also consults with industry vendors on products and marketing strategy. It publishes the B2B Marketing Automation Vendor Selection Tool (VEST), the industry's most comprehensive independent guide to B2B marketing automation systems.

#### Contact:

Raab Associates Inc.
730 Yale Avenue
Swarthmore, PA 19081
www.raabassociatesinc.com
info@raabassociatesinc.com