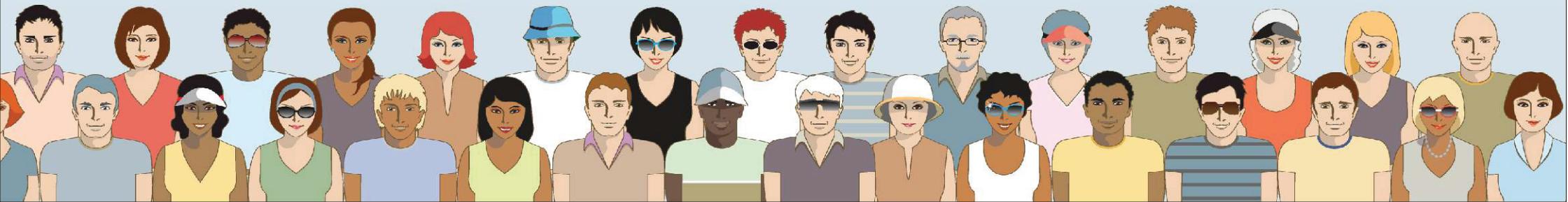
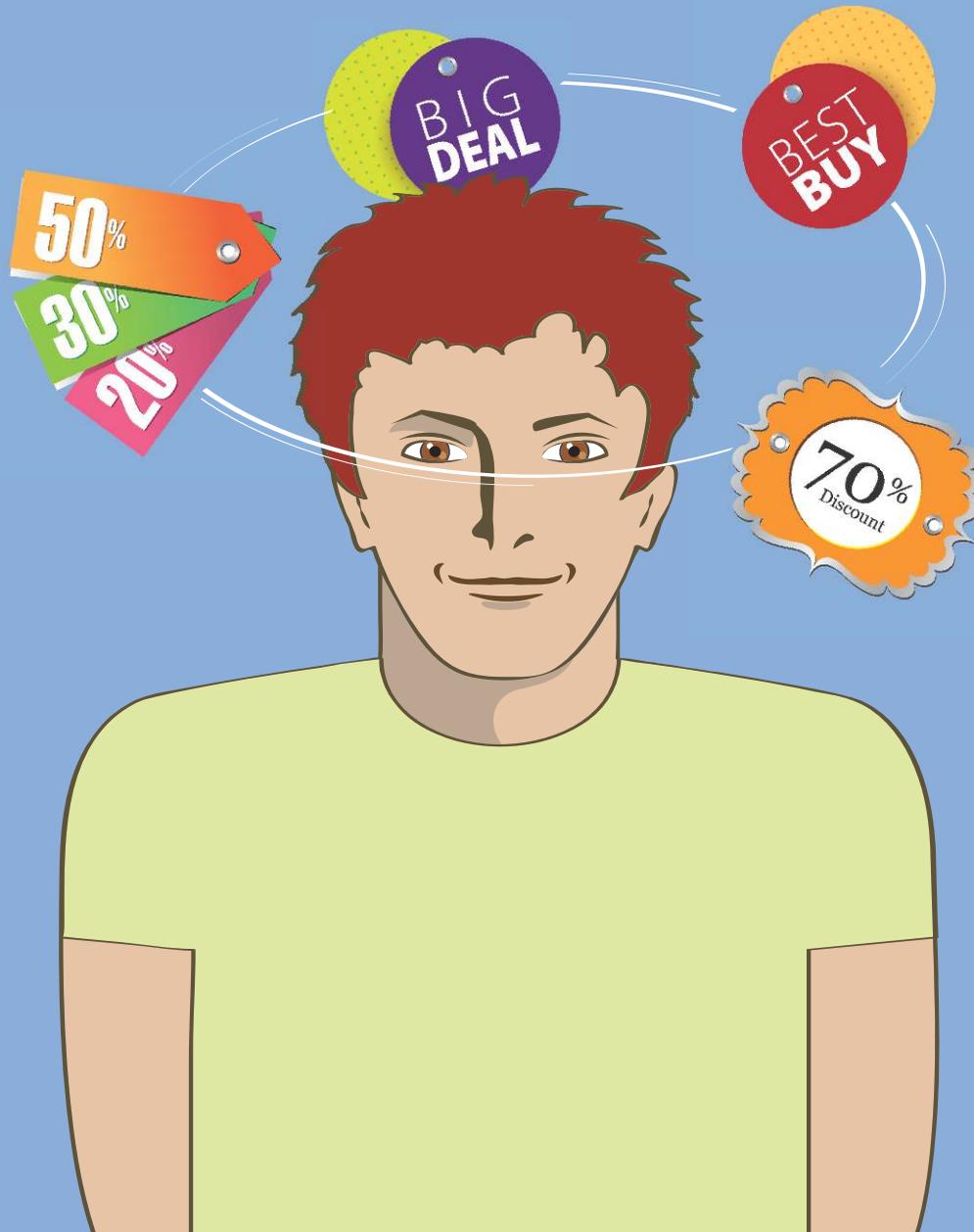


# Orchestrating personalization that delivers impact



# Overview



All of the text books and professors and seminars and case studies tell us that customer relevance leads to customer intimacy. Personalization leads to revenue and market share. Yet most retail marketers are unable to bridge this gap between desire and action.

**Bridge the gap between desire and action.**

In the RIS research 'The Power of Emotional Connections', May 2013, 4 out of 5 customers surveyed said that relevant personalized offers are key drivers for loyalty towards a retailer. But a limited understanding of individual customers can often prevent you from responding to this need for personalization.

How can retailers like you harness the power to execute targeted campaigns through micro-segmentation and granular promotion planning?

Historically, retail marketers have relied on intuition or manual data analysis to develop targeting strategies. But when dealing with hundreds of micro-segments, these methods are inefficient. They are time consuming and effort-intensive to deploy meaningfully. Successfully targeting customers with highly relevant promotions requires a data-driven understanding of customers. But this is easier said than done.

**Get a data-driven understanding of customers.**

If we look across the different dimensions that retailers can personalize their communication, the numbers can be staggering. Here is a quick, back-of-the-envelope calculation of the complexity and choices you are faced with:

$$\begin{aligned} & 4 \text{ segments} \times 12 \text{ categories} \\ & \quad \times 3 \text{ formats} \times 4 \text{ events/year} \\ & \quad \quad = 576 \text{ personalization options!} \end{aligned}$$

The vastness of choice makes it near-impossible to achieve personalization without an institutionalized way of parsing through options and extracting the most lucrative options. Retailers are grappling with this need to deploy the right infrastructure that can help them design and manage permutations and choice points leading to one-to-one marketing.

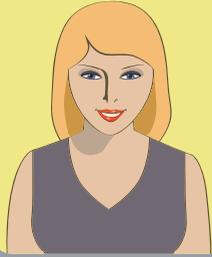
# ARC Recommender

Manthan's revolutionary approach to offer-recommendation.

While working with retail marketers like you, we have been asked, time and again, for our perspective on how a retail marketer could best match individual customer behaviors with her offer bank to come up with ideal combinations. To answer the question our scientists developed ARC Recommender, a comprehensive data-mining engine that understands the uniqueness of each customer, and helps you make the best offer to your customer. With ARC Recommender, you can:

## ► Improve offer targeting

The engine will target offers only to customers who are likely to respond. This helps you improve marketing ROI, eliminates needless spam and improves offer conversion rate.



You need to promote a slow-moving mauve winter glove. Margaret is supplementing her winter wardrobe. She will find your promo apt. Margaret, a regular customer at your apparel store, is shopping for winter wear just now. She has picked up a lovely mauve winter overcoat in the past. Recognizing such purchase behaviors, the engine identifies the best target audience for the offer.

## ► Enhance basket size

The engine helps you make product suggestions to a customer that may be interesting to her but are not in her consideration set today. This is a very powerful means to drive growth, as it helps you identify cross-sell and up-sell opportunities based on intrinsic but often implicit customer behavior. The engine analyzes a customer's distinctive purchase behavior and recommends products she may like. In your e-commerce store you use browsing behavior to make recommendations in real-time.



Jenny's likes to throw parties and loves surprising her guests with new ideas. Get her to try your new snacks options. Meet Jenny, a 20-year-old college student. She picks up several cans of Diet Cola, stacks of paper plates and paper napkins on Fridays. She will find a promotional '1 + 1' offer on Barbeque-flavored crisps, which other customers like her buy often, highly relevant. If she likes them, so will her friends.

ARC Recommender helps you successfully execute promotions that meet your marketing ambitions.

## ► Planned campaigns

These often involve sending out weekly mailers with current offers, or quarterly or yearly loyalty mailers with details like point balance and account updates. These are often based on a promotional calendar that targets specific seasons.

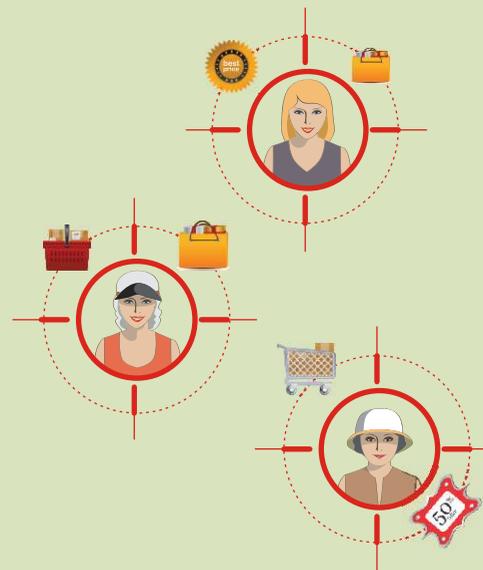


### 'Back-to-school' promotion targeting mothers.

Pauline is a mother of two kids aged 7 and 10. You know she's planning her back-to-school shopping, so why not send out a set of targeted offers and 'reward' coupons on products she like? Our recommendation engine will identify and short-list relevant offers for Pauline, such as discounts on school bags, stationery and lunch-boxes.

## ► Tactical promotions

Tactical promotions are dynamically configured based on basket conditions, events and customer interactions. Dynamic promotions are often also executed to meet short-term objectives such as a new product launch, customer churn, competitive response or inventory reduction.



## Meet competitive action by intelligently deploying your budget where it matters.

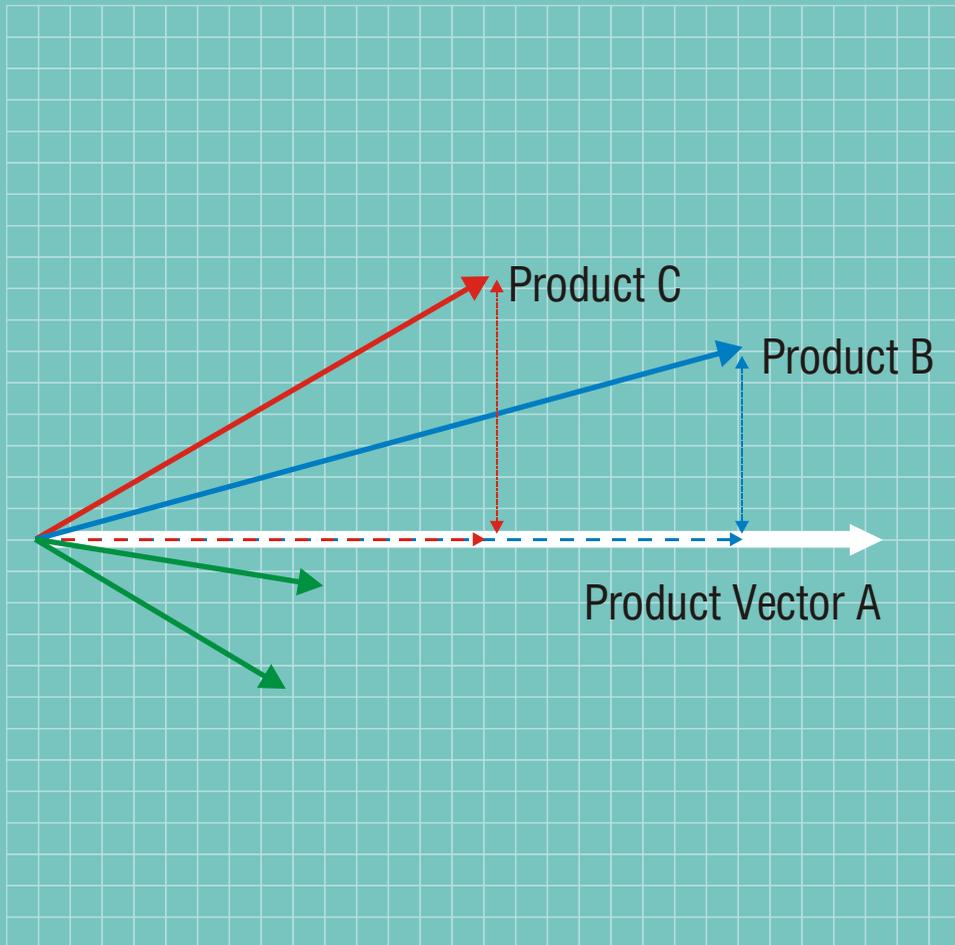
Deep discounting by your competitor across the street is driving your customers away and you are at the risk of losing them forever. You don't have enough time to go back to the head-office and ask for extra funds. Use your current offers to intelligently target customers and neutralize the threat.

So when Margaret, Jenny and Pauline are targeted by your competitors with off-character price-offs, you have your block-and-tackle at your finger tips to counter, and keep your best customers within your fold.

# The ARC Recommender Methodology

Manthan's proprietary recommendation engine is built on the concept of entity affinity which looks at the purchase behavior of customers who bought the item and then identifies others who may also like it. The algorithm behind the engine uses advanced statistical modeling and is optimized to run on very large scale data.

The algorithm represents each item by a vector of dimension same as the number of customers in the transaction data. In other words it builds a vector representation of the characteristics of each item. Similarity between two items is measured by projecting one vector along the direction of the other vector. This similarity, in a sense, identifies the customer who liked the items under consideration and then extrapolates it to other customers who may also like it, but have not considered it yet.



User-item purchase incidence  
Product reference vectors

Active customer	Item 1	Item 2	Item 3	Item 4	Item 5
Alice	1	0	0	0	1
User 1	0	1	1	0	1
User 2	0	0	1	0	0
User 3	0	0	1	0	0
User 4	1	0	1	1	1

Item under consideration

This approach gives a lot of room for flexibility. First, the recommendation can be used in many different ways. It helps you take the customer marketing funnel starting from trial of new products, to encouraging repeat purchases, and then finally rewarding highly loyal customers.

Secondly, the engine has the intelligence to understand various compliance requirements. For example, you may want to contact your customer no more than 2 times a month, or send certain offers only to customers in the premium tier. Any anti-spamming conditions and offer rules are taken into account before coming to the final recommendation.

Thirdly, the approach can work with limited amounts of data. It works effectively even for new customers who don't have sizable history with the retailer. It also allows us to selectively add new data sources, which enables us to build a much better picture of the customer.

The algorithm is highly scalable and uses big data approach to be able to handle petabytes of data effortlessly, so that retail marketers like you could unleash the power of ARC Recommender for every weekly promo plan, at the store level.

To know more about how ARC Recommender could revolutionize your campaign write to [online.enquiries@manthansystems.com](mailto:online.enquiries@manthansystems.com)  
Visit us at [www.manthansystems.com/ca](http://www.manthansystems.com/ca) to learn more about our customer analytics solutions.



Manthan serves as the Chief Analytics Officer for consumer industries worldwide. With its portfolio of analytics products and solutions, Manthan helps its customers derive a competitive advantage through data-driven decisions. Headquartered in Bangalore with offices in US, UK, Philippines, Singapore and Brazil, Manthan's client footprint spans 18 countries. Manthan's innovation and accomplishments have been consistently recognized as leading among its peers; it has been part of the Deloitte Technology Fast 50 list for 5 years running, finalist at Red Herring awards in 2007, 2008 and 2011, described as 'the most innovative company' at the Stevie International Business Awards 2011, and most recently ranked #1 for technology innovation and for product reliability in the RIS Software Leaderboard. For more information, please visit [www.manthansystems.com](http://www.manthansystems.com).

