Understanding the Customer Value Chain

Building Evidence-Based Models

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Improving Bottom Line Performance

Technical Analysis
- Risk Premium Models
- Make/Model Analysis
- Geographical
- Demand Models

Price Optimisation
- Each Product/Channel
- New Business/Renewal

Profit Optimisation
- Marketing
- Relationship Management

Strategic Optimisation
- Channel Strategy
- Growth Objectives
- Reputation Risk
- Capital Management
The Customer Value Chain

- Can apply statistical analysis to understand customer behaviour and value at each stage in the customer value chain. Each stage has a cost.

- Different types of analyses are appropriate at different stages.
The Leads Pipeline

The objective is to get (ultimately profitable) customers across this threshold, cost-effectively.

PRICING gets you across this threshold, along with:
- Quote scripting
- Contact centre response/operator

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An Age Old Challenge

“I know that half of my advertising is wasted
I just don’t know which half”

Lord Leverhulme

Still looking for answers in the current landscape

- An explosion of communication channels
- Businesses seeking robust measures to demonstrate accountability
- Fragmentation of strategic advice from numerous specialist agencies
- Need for an evidence based framework, delivered from a neutral perspective
Strong relationship between media strategy and pricing strategy

Invest in media

? 

Invest in price discounting
In some industries media strategy and customer pricing fulfils two very different roles.

Generate Leads

- Media and Headline Offers
  - e.g. save 35%, 15% off for online

Convert

- Customer Pricing Question

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VOLUME  PROFITABILITY
Media modelling techniques recently developed now mean we can understand this relationship:

- High level link between sales success and media strategy using some form of time series analysis
- Detailed link found between pricing and media activity and the volume and profitability of new business
- Intuitive belief in what worked
- Codified this belief into a “model”
- Supply side led
  - Cheapest media deals
  - What was done last time
  - What competitors did

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What is the Benefit?

- Performance **efficiencies of 10-30%** gained through more efficient decision making
  - Overall level of investment
  - Geographic allocation
  - Media Mix including BTL
  - Product mix (home/motor)
  - Which brands to support
  - Timing/phasing
  - Media costs per
  - Adapting to competitor activities
Primary focus of Media Modelling is exposure across channels

Projects focus on **macro** analysis *across* channels

The **micro** analysis of the deployment of media *within* channels is sometimes a secondary consideration

- The focus is on the marketing mix rather than channel specific performance
- The process is independent of channel specific ‘source code’ analysis
Identifying Cause and Effect Between Spend and Sales

Inputs

Internal Factors
- Products / Offers
- Creative
- Media Used

External Factors
- Market Conditions
- Competitor Activity

Performance Efficiency
&
Brand Growth

Outcomes

- Enquiries
- Sales
- Brand Strength
Many Variables Initially Considered (Between 400 and 500)

**Market (Related to Industry)**
- GDP Growth
- CPI
- Housing Growth
- Interest Rates
- World Events

**Competitor**
- Radio Ads
- Press Ads
- Total Media Spend
- Cinema/Outdoor Spend

**Offer**
- TV TARPS
- Product Launches
- Discounted Rate
- Added Value Offer
- Free Service Trial

**Creative**
- Campaign A
- Campaign B
- Campaign C

**Predictive Factors**
- Seasonality
- Unemployment Growth
- Rainfall
- Technology Index
- Consumer Confidence
- Housing Purchases

**Media**
- Radio Exposure
- Cinema/Outdoor Spend
- Magazine Exposure
- TV TARPS Stats
- Online Exposure TV TARPS
- TV Reach Stats
- Radio Ads Long Term
- Press Exposure TV TARPS
- TV Frequency Stats
- Total Media Exposure

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The modelling can be carried out at the postcode district level…

- Weekly media exposure for each channel is allocated at a postcode level
This Provides the Necessary Richness of Data

- Media exposure in adjacent postcodes in a given week may be quite similar.
- However, differences between weeks and geographies allow us to gain a true understanding of the impact of media exposure on customer behaviour.

- By considering multiple years of data across all geographies, we have a large number of ‘experiments’ or data points on which to conduct the modelling.
Modelling at the postcode level gives us greater certainty around the impact media has on enquiries/sales

- By looking at the data in a more granular way, more understanding can be drawn about the relationship between exposure and response.
- Identifying the slope and shape of the relationship offers significant benefits.

![Graph showing the relationship between Leads Generated and Exposure]
Pure Effects of Each Variable Modelled for Influence

- The specific effect of each influence is isolated (Media and non media factors)
- These ‘pure effects’ can be used to guide each channel’s optimal deployment
Demographics vary by postcode

Populated mainly by younger people

London

Populated mainly by older people

New Milton

Evenly populated

Honiton

Not surprising because demographics vary so significantly by region – example age
Modelling at the postcode level allows for many different types of media

- Include above the line and below the line accurately

- Because different areas have different intrinsic value
  - In some areas you are more competitive
  - Have higher conversion rates
  - Have higher customer lifetime values
Modelling impact of media requires a specific approach

- We employ generalised linear modelling (GLM) techniques, which are best practice within insurance pricing.
- GLMs permit “error structures” which correctly describe the natural uncertainty in the data.

GLM approach solves key challenges within “traditional” methods:
- Multicollinearity of factors, appropriateness of fitting method, testing of residuals, heteroscedasticity, interaction searching and testing.

GLMs are:
- Able to handle large quantities of data and sparse observations.
- Robust to changes in exposure mix and changes in the predicted response.
Channel Performance

- Each channel’s effect can be understood in isolation

Radio

Competitor

TV

Online

Press

Note: Illustrations only
We have developed this approach so we are better at predicting future behaviour

- Since we now have sufficient data to incorporate all of the factors which influence lead outcomes and the right shape and slope for each factor
The benefits of analysis beyond straight lines

- Consider September 2005
- a high level of media spend was not met with a peak in sales

Media Spend and Sales Volume

- Spend ($000s)
- Sales Volume
- Month

TV | Info | Pr - OTP | CPr - OTP | Mag - OTP | Pr - Ins | CPr - Ins | Mag - Ins | Doordrops | Online

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September 2005 was Particularly Heavy in OTP Press and TV Exposure

- Almost £1m was spent in the month beyond the point of zero marginal returns as identified in our modelling.
Allowing for Customer Value

- Allowing for Propensity AND Value
- Wish to direct marketing spend towards the most valuable prospects

- ...or towards those who can be influenced to increase value.
Segment Characterisation – The Customer DNA

- Can characterise segments, and identify segment-specific levers of influence, and trigger events – and so frame targeted activities.