Understanding the Customer Value Chain

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Improving Performance
Keeping all your eggs in one basket!

- **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

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The Customer Value Chain

- Can apply statistical analysis to understand customer behaviour and value at each stage in the customer value chain

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

Unaware

Aware

Consider

Enquire

Buy

Mass Media
Advertising

Direct
Marketing

Prospect

Lead

Customer

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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Marketing Analytics - The Way Forward

- Statistical analysis of customer data can inform marketing strategy and tactics…
- …and improve marketing performance

- Actuaries possess the key skills necessary to do this work…
- …and it is in their interest to get involved…
- …by making friends with marketers
- …and doing the analytics better!

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How Does This Help Marketers?

- Helps marketers gain deeper customer understanding

- Helps them to answer key tactical questions:
  - *which* customer segments are the most profitable?
  - *which* prospects should my campaign target?
  - *how* should I direct my finite media budget?
  - *when* should I communicate with a customer, and *how*?
  - *which* customers should I spend money on retaining?
  - to *which* customers should I cross-sell, and *what* products?

- Improves the customer experience:
  - appropriate, relevant, targeted, timely marketing communications and servicing activities
Marketing Analytics – What Is It?

- Applying **statistical analysis** techniques to **customer data** to understand the drivers of customer **behaviour** and **profitability**…
  - … and so how to influence customer behaviour through targeted marketing activities

- Rich customer data now available from CRM systems:
  - attributes, attitudes, holdings, utilisation, servicing, payments, communications, demographics

- Statistical analysis techniques similar to GI
  - GLMs, augmented by e.g. data mining with CART
  - many more factors, and unfamiliar ones

- Wide range of customer behaviours
Example: Direct Channel Motor Insurance Lead Generation

Objective is to generate new business leads (i.e. quotation enquiries):

- in sufficient volumes
- ultimately profitable (contribution, claims cost, retention rate, service requirements, payment delinquency)
- cost effectively (per lead generated)
- cost effectively (considering response channel lead handling costs)
- without impacting adversely on existing customer relationships (i.e. can’t mail too frequently, or inappropriately)
- …or on perception of brand service values (i.e. have to have capacity to handle responses)
- having particular customer mix (or leading to particular mix of converted policies)
- leading to particular customer product cross-holding levels
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
Identifying cause and effect between spend and sales

Inputs

External Factors
- Market Conditions
- Competitor Activity
- Media Used

Internal Factors
- Products / Offers
- Creative
- 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
- Technology Index
- Consumer Confidence
- Housing Purchases
- Seasonality
- Unemployment Growth
- Rainfall

**Media**
- Radio Ads
- TV TARPS (25-54)
- Cinema/Outdoor Exposure
- Magazine Ads
- Online Exposure TV TARPS Overall
- Press Exposure
- TV Reach Stats
- TV Frequency Stats
- Radio Ads Long Term
- Press Most Expensive
- Online Impressions
- Online Search
- Engine Impressions
- TV Exposure
- Community Press
- Cinema/Outdoor Spend
- Online

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

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

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

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We do this by considering data at a more granular 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
Improving on basic econometrics

- 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 exposure and leads generated with linear and non-linear trends.](image-url)
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

Impact of Number of GRPs (Ages 25-54) In Last 7 Days

- No uplift in leads below 50 GRPs
- Point of diminishing returns
- No additional leads after 300 GRPs
Channel performance

- Each channel’s effect can be understood in isolation

**Radio**
- Number of ads per person last 7 days

**Competitor TV**
- GRPs in last 2 weeks

**Online**
- Online impressions last 7 days

**Press**
- Impressions per person last 4 weeks

Note: Illustrations only
The benefits of analysis beyond straight lines

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

![Relativity by TV Impressions Per Person Last 2 Weeks](image)
Modelling DM Response Propensity

- Build a GLM statistical model of historic DM response propensities
- Richer data available for current customers, affinity lists, declined quotes, than for new prospects – client specific data and factors
- Renewal dates are key – collect or buy, demographic for new prospects
- Response = quotation sought through call-centre or website
- Differentiate between “baseline” and campaigns-driven past experience
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.
Customer Prospect Segmentation

- Build models of individual customer lifetime profitability
- Combine response propensity and lifetime profitability into individual customer “acquisition value” = “expected value of mailing”
- Rank by value, and segment customer prospects
- Aim = determine appropriate marketing treatment for each segment

Distribution of Direct Channel DM Response Acquisition Value

Proportion of Prospects

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Segment Characterisation – The Customer DNA

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

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Gaining Customers
- Prospect Identification
- Lead Generation
- Lead Handling
- Lead Conversion

Retaining Customers
- Retention Management
- Up-Sell
- Cross-Sell

Growing Relationships
- "lookalike" analysis
- Propensity analysis
- Geographical analysis
- Value models
- Media modelling
- DM response propensity analysis
- Lead value models
- Channel utilisation propensity analysis
- Contact centre optimisation
- Price optimisation
- Price optimisation
- Communications optimisation
- Relationship management and service levels
- Propensity analysis
- Value models
- Trigger-based communications
- Campaign response value optimisation

- Different types of analyses are appropriate at different stages