



Developing Insight from Customer Analysis and Segmentation

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The obligatory bit about E.ON

E.ON is one of the world's leading energy companies with a strong market presence across Europe and the US Mid West

Our UK retail business has around 8 million electricity and gas customer accounts, covering domestic, SME and industrial.



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Agenda

Obtaining Data

Undertaking Analysis

Deployment of Findings

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Deploying Insights

The First Rule(s) of Segmentation

- Be clear on your purpose before starting – know **WHY?**
- The second rule is to think about **WHO** is going to be deploying your flash of brilliance
- The third rule is to think about **HOW** your proposals will be implemented
- This informs both the type of data required and the analytical approach

Insight Deployment

Good insight is inconvenient

- It changes plans
- It changes working practices
- It can both start and end activities

In short, my audience would probably prefer to ignore my best work!

The requirement for successful insight deployment is therefore usually simplicity

- Remember that audience is generally non-technical

Examples of Simplicity

Don't be afraid to give up some accuracy and sophistication from your analysis to aid deployment

- Take the long view in driving change

Use of deciles (or similar) for statistical scorecards

Clustering is always an interesting technique – a 'pure' solution that is almost impossible to explain

- One can use this approach to determine the 'pure' variables and then deploy 'hard' rules to define the segments



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Data Resources

Internal databases – person level
but spend is required to integrate “account” level operational systems

Individual-level external data sets
are commercially available
I include Electoral Roll here

Area-level external data sets
Government is a good(ish) (and free!) source

Market research – sample-based

Much commercial focus depends on identification of the individual

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Data Case Study
Carbon Emissions Reduction Target (CERT)

Priority Group customers qualify for free measures, so need to identify them

- Definition – someone in the household receives one of 14 benefits (e.g. Working Tax Credit, Child Tax Credit) OR is aged 70 or over

Ideally – need a flag against each address identifying eligibility for cost-effective targeting. Where might we get this data?

- Not held by the energy industry (apart from by exception)
- Needs validation to prevent fraud and updated to reflect changing circumstances

Age data is commercially available

- Lacks 100% accuracy but generally acceptable
- Has been acquired at reasonable cost

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Data Case Study
Carbon Emissions Reduction Target (CERT)

Benefits data generally not commercially available

- Partial availability, recency often unknown
- ‘Master file’ held and validated by HMG

Difficult to acquire

- Political and legal barriers
- Potential “price”

“Reduced” to statistical modelling to achieve improved efficiency, and hence lower costs (and bills)

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Undertaking Segmentation

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Analytical Options

There are many different types of segmentation. For example:

- Scorecard-based segmentation
- Rules-based segmentation
- Attitudinal segmentation
- Cognitive behavioural segmentation

These constitute 90% of segmentations currently deployed at E.ON

I'll be talking about examples of the first two types today

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What is a Statistical Model?

- Really just a systematic way of beating guesswork

Tired	Not so tired
Drive people carriers	Drive sports cars
Favour disposables over the environment	Terry nappies are greener
Used to cleaning up after others	Outraged by mess

←—————→

More likely to have children **Less likely to have children**

Nothing is 100% accurate (look at the weather forecasts)

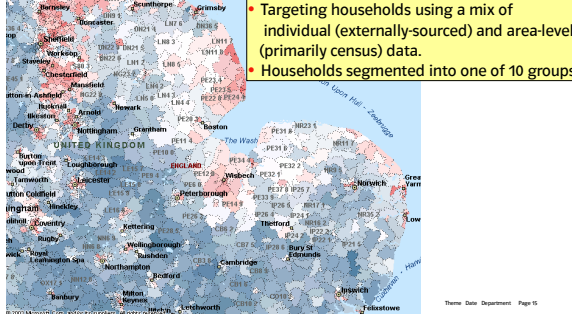
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Segmentation Case Study

Priority Group Targeting

- Very little suitable internal data.
- Targeting households using a mix of individual (externally-sourced) and area-level (primarily census) data.
- Households segmented into one of 10 groups



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General (rules-based) Segmentation

Can be constructed using statistical techniques or just common sense and experience

Can accommodate widely ranging data inputs

- Census
- Socio-demographics
- Transactional data
- Product holdings

- Can be mapped 1-2-1 on databases, at an area level or used 'above the line'


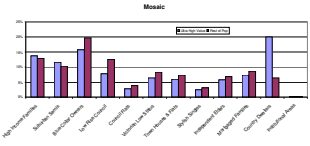
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Examples of Rules-Based Segments

High User Segment

6% of base
18% of total contribution per customer
Average annual electricity consumption 4x national average
20% dual fuel

Snippets from external data
Avg household income 10% higher than rest of base
Index of 150% self-employed
Index of 140% reading quality newspapers

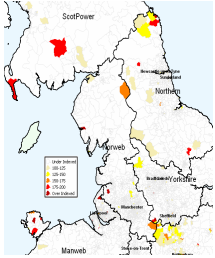

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Examples of Rules-Based Segments

Low User Segment

5% of base
1% of total contribution
Dual fuel penetration 40%

Snippets from external data
Lowest income segment (33% below average)
Index of 175% renting
Index of 200% living alone, 200% retired
Low car ownership (index of 55% with car)

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The search for insight

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Principles of Analysis

Analysis v Insight

Generating insight can be difficult – the Eureka moment is hard to trigger

Type of seat and leg room in business class cabins is more predictive of customer satisfaction on short haul flights at the beginning and end of the day than at other times

“When travelling I want to make the most of my working day so I can spend the night in my own bed”

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Summary

Data acquisition can be a problem, but usually proxies can be found (at a price). Integration of different data resources can be costly and time consuming

In many (commercial) environments, person-level segmentations are the most commonly deployed option

The key challenge is generating the insight rather than reporting the finding

A further challenge for implementation is business buy-in and implementation, rather than technical skill

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End