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34TH ANNUAL GIRO CONVENTION

CELTIC MANOR RESORT, NEWPORT, WALES

D02: Developments In Price Optimisation

Stephen Jones – Director, EMB; Analytics Director, Quantium UK
Phil Webb – Pricing Manager, AA Insurance Services

What we discussed in 2006

- What is price optimisation and why do it?
- What is “mathematical” optimisation?
- Implementation approaches and practical issues
- Case study – mathematical optimisation implementation at AA Insurance

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Why we talked about this in 2006

- Too much DFA/ICA at GIRO!
- Market circumstances
- Maturity of technical costing techniques
- Period of rapid development of tools and techniques
- Encroachment of non-actuarial suppliers with multi-sector offerings

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So why are we back again….?

- ***Good*** optimisation is extremely valuable in current market circumstances

UK Commercial Reality

- Universal desire for profitable growth
- Increasing unit acquisition costs
- Increasing influence of aggregators
- Scarcity of technical pricing resource
- Underwriting cycle turning?
- Competitors are optimising prices

Optimisation Benefit

- Improvements to *both* profitability and volumes performance achievable
- Maximise value from new business enquiry flow and current portfolio
- Increase effectiveness of marketing messages and POS discounting
- Align and optimise strategy across multiple new business distribution channels
- Deploy scarce resource towards greatest value-adding activities
- Optimally moderate renewal increases
- Counter potential loss of competitiveness

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….and what's changed since 2006?

- "Early adopters" of optimisation have completed implementation:
  - now focussed on refining key inputs and the implementation approach
  - deploying initial learnings to tune and direct pricing strategies
  - developing approaches for the aggregator environment
- For the majority of mainstream insurers and intermediaries, internal "dabbling" has been superseded by formal development projects
- Procurement process triggered as a "big ticket" purchase:
  - phased ITT/RFP response and "beauty parade" selection process
  - different balances of IT vs. technical vs. business involvement shape this process
  - can significantly delay realisation of benefits
- Potential benefits and practicality of optimisation are now widely recognised?
  - reduced desire for "pilot" implementations to develop internal business case
- Offerings of the main providers have "crystallised":
  - propositions and positioning understood, as are key differentiators
  - growth in "bureau optimisation" propositions?

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….and what are the big issues now?

- How best to model price elasticity:
  - requirements around random price tests
  - whether to include the price test factor directly within model
  - non-linear vs. GLM approaches, pros and cons
- How to optimise a ratebook directly:
  - technically challenging
  - how best to approximate with a table structure

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….and what are the big issues now?

- The relative advantages of offline and online approaches:
  - online = “IT heavy”, “headcount lite”, “control lite”?
  - offline = greater uplift, better risk control, more able to deal with practical complexities?
- Gender Equality Directive:
  - potential impact on individual risk renewals optimisation?

….and what are the big issues now?

- Aggregators!
  - additional new business channel to optimise within a multi-channel strategy
  - are responsible for changing the elasticities observed within other new business channels
  - further degrade competitor price measures such as What-If?
  - low conversion rate requires high data volumes for price-elasticity modelling
  - data not always good, and often pollutes own-brand web data
  - retention levels uncertain for multi-year projections

AA Insurance – Price Optimisation

Presentation Summary

- Brief Overview of P.O. Development and Aims
- Achievements To Date – Portfolio and Income Growth
- Impact of Aggregators & Changing Mix of Business By Channel
- Multivariate Analysis - Motor New Business
- Examples of Interactions Between Variables
- Price – Elasticity v Market competitiveness
- Why 1 – Way Analysis Can Be Misleading