

The Challenges Facing P&C Insurers in Implementing Price Optimization

Geared towards Personal Lines P&C carriers
writing in the US

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Agenda

My goal is to lay out some of the key considerations that personal lines insurers should think through as they decide to include Price Optimization (PO) in their rating process. This is intended to be from the perspective of a P&C insurance company in USA that has already figured out the reason it wants to use PO.

Key Considerations:

- Data
- Model Building
- Competitive Landscape
- Management
- Regulatory Issues
- Implementation
- Expectations
- Agents and Policyholders

Data Considerations

Renewal Business

- Do you have enough rate changes to build reasonable renewal elasticity models?
- Is the historic data captured with enough detail?
- What are the appropriate boundaries (-50% / +100%) where the model predictions will hold true for a given rate change?
- How to separate premium increases due to exposure change from those driven by rate / segmentation change?
- When does the policy non-renew? How to separate non-renewals due to premium changes from other changes?

New Business

- Do you have all rating details captured in your quote data to build new business elasticity models? Is it reliable?
- What counts as a quote?
- How do you identify and handle multiple quotes from the same household?

Data Considerations



Model Building

- Who will build the appropriate retention / elasticity models? Actuaries / modelers (typically loss cost models) / consultants?
- What software will you use? Will it be a commercially available package or something home-grown?
- What variables to include? True for all models but for some companies elasticity models are new.
- Are your models going to hold true across different channels or do you need separate models by channel?
- (Using auto as an example) Will you model elasticity at the vehicle, policy or maybe even account level?
- Should you build a 'simple' logistic model or do you need something more complex?

Understanding the Competitive Landscape



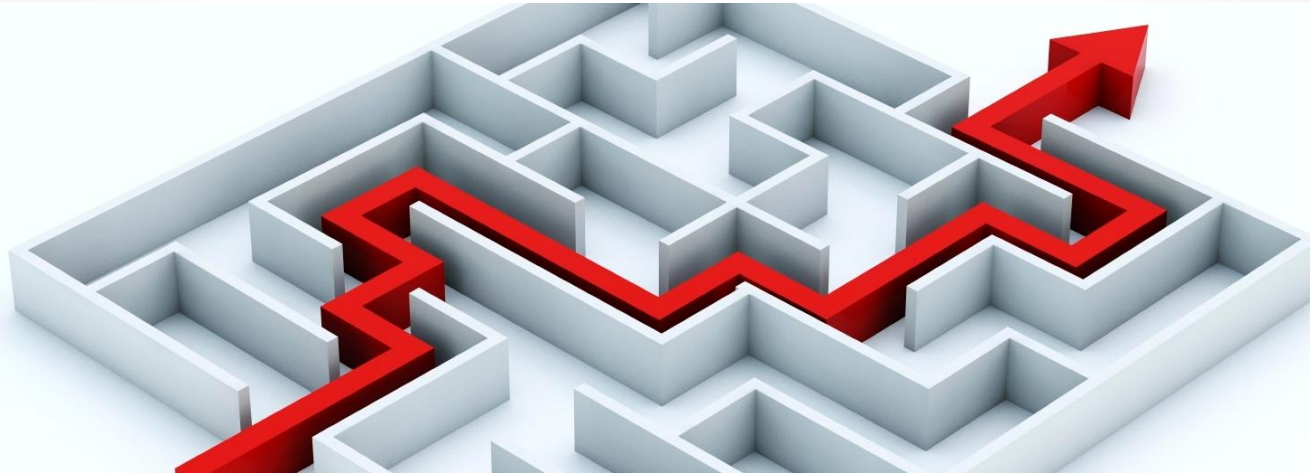
Understanding the Competitive Landscape

- How are you going to incorporate your competitive position?
- Do you have the right (and reliable) competitive information?
- Is there an accepted company-wide definition of a competitive index?
- Has the competitive landscape changed (significantly) since you obtained the data?
- Competitors used for analysis may not represent the entire market.
- Competitive data is not easily available outside US.

Communication to Management

- How and when do you get management involved?
- How do you explain what PO does? How do you explain what PO does not provide?
- How do you explain deviation from the results of predictive models, which were often hard for them to understand to begin with?
- How to quantify the risk? How much can you lose? Address any potential solvency concerns.
- What is the risk of not using PO?
- Is it consistent with ROI / ROE models?

Regulatory Issues



- How will you communicate your findings and intent to regulators?
- What (if any) are the regulations around use of PO in any given state?
- What questions do you expect from DOIs and how would you respond?
- Stay aware of ongoing CAS discussions and regulatory changes.

Implementation

- How do you plan on implementing PO in your rates?
- What rating tables would have to be modified or newly created?
- Can existing quoting and renewal rating systems handle whatever complexity you build into the structure?
- How do you design and build the algorithm so it's flexible enough to handle future changes?
- How long does it take to implement from the start of the process to actual rates in the market using PO?

Expectations

- Can you quantify the expected benefit? (Typically lower loss ratio or higher retention/growth)
- How can you monitor whether it was successfully implemented or not?
- How will this change your mix-of-business? Is that desirable?
- PO may provide different answers than loss cost predictive models – how will you reconcile and know what's the right answer? Do you trust the economic theory and underlying data to proceed with confidence?

Communication to Agents and Policyholders



- How do you communicate the change to agents?
- As with any other change, be prepared to explain the change to policyholders who see an increase in premium.

Any Questions?

