

KerperBowron Price Optimization

Price Optimization-Getting the Project Off the Ground

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Key Roadblocks

Roadblock	Solution?
Regulation	Optimize within the regulatory framework - for heavily regulated products/states don't bother
Cost	Do a cost/benefit analysis
Resources	Include in cost/benefit analysis – possibly use consultants Use this opportunity to potentially realign the entire process

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Key Roadblocks

Roadblock	Solution?
End users/ other functional areas	Change the metrics Buy in from senior leadership
Other Projects	ROI comparison

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Pros of Optimization

Pros

- Increased profitability
- Increased retention
- High ROI
- Pricing which is designed to meet corporate objectives
- Good predictive modeling application for smaller companies/programs

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Cons of Optimization

Cons

- Agreeing on a modeling framework
- End user buy in/training
- Corporate buy in
- Data issues

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Common issues stopping optimization projects.....

- We're still finishing our GLMs.
- We don't have the resources.
- We don't want to be on the "bleeding edge" of this.
- We are gathering the data/researching the models

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Many concepts are overlapping...

- Lifetime value
- Demand modeling
- Competitive analysis
- Retention modeling
- Scenario modeling
- Price Optimization
- Others?

Unlike other predictive modeling projects, you must “push” more to the end user (the underwriter, the product manager, the pricing actuary)

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Lifetime Value

- Lifetime value is the present value of a piece of business today to the company
- Easy to explain, but hard to implement

Example: a 25 year old single male buys a liability only policy

- Will he eventually get full coverage?
- Will he eventually get married (and stay with the company)?
- Will he buy a homeowner’s policy from us?
- Will he buy life insurance?

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Which is better – GLM or Optimization?

- While GLMs are more precise, how much of an increase in profitability will you see?
- Number of variables
- Interaction
- New Variables?
- Impact may be quite small, especially if you do not change your rating structure
- Optimization within your existing rating structure will typically lower COR by 0.5 to 3 points, depending on regulation/constraints and elasticity.

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Final Thoughts

- Optimization projects require more "buy in" and process changes than other predictive modeling projects.
- Business users must be involved in model assumptions.
