



Pricing Optimization Unsecured Lending

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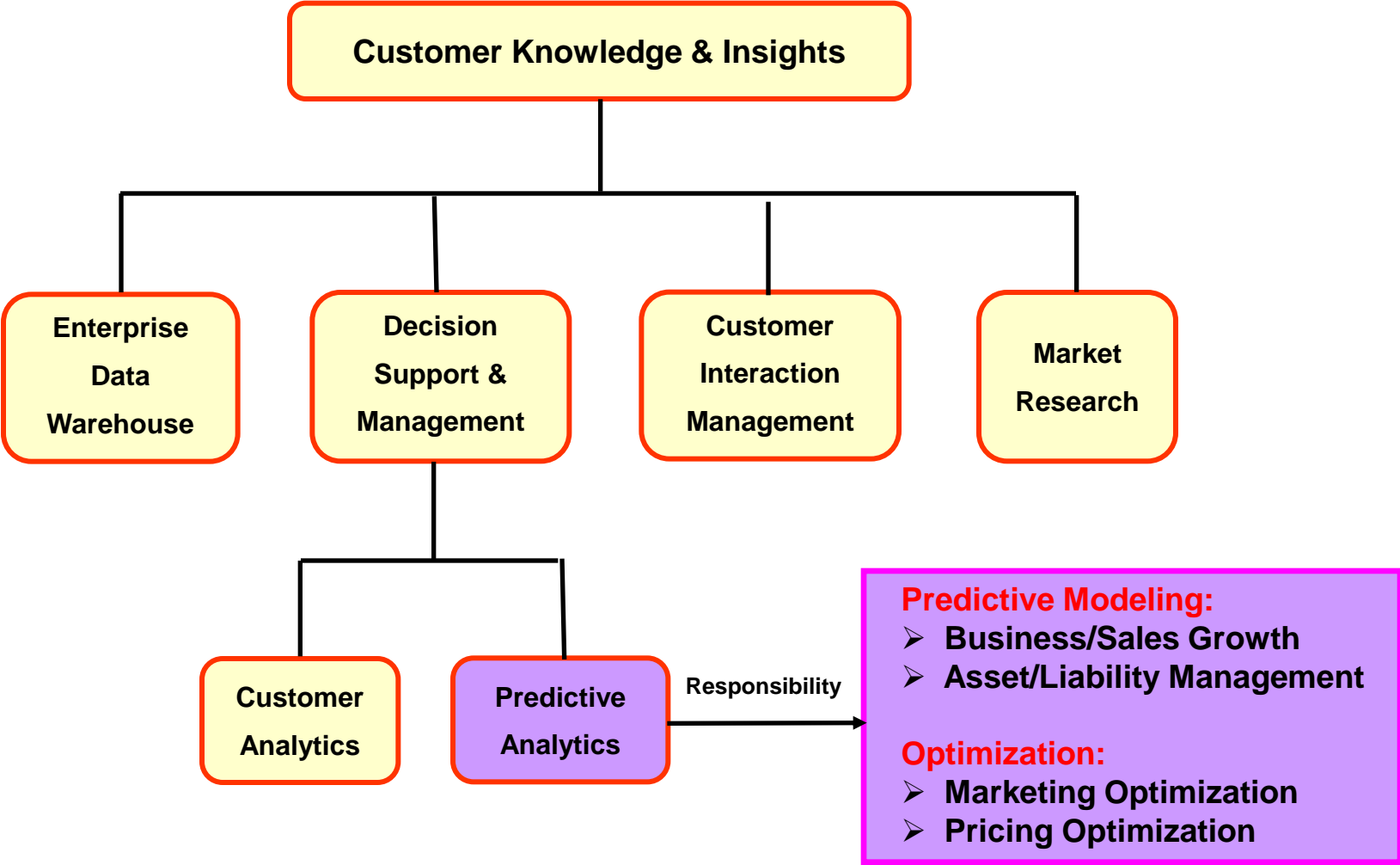
*Customer Knowledge & Insights
Scotiabank*

Toronto Data Mining Forum
May 15, 2013

Agenda

- ❑ Who we are
- ❑ What is pricing optimization
- ❑ Project Initiative
- ❑ Stakeholders
- ❑ Analytical Solution
- ❑ Pricing Solution
- ❑ Lessons Learned
- ❑ Questions

Who We Are



What is Pricing Optimization?

A strategy of customizing pricing for each customer based on an understanding of its sensitivity to pricing.

This means...

Upon product application, specific customer attributes are potentially used to determine a customer's optimal price based on business objectives.

- o Different pricing strategies could exist depending on the business objectives.
- o Optimizing the trade-off between volume and profit within a set of business constraints.
- o Re-optimizing the pricing whenever necessary to maximize net revenue and manage the sales conversion.

How Can Pricing Optimization Help?

Pricing optimization is

enabling bank executives to use pricing as a strategic weapon to meet their corporate objectives and to become more customer-centric in their decision making.

Dr. Robert L. Phillis
Founder &
Chair Science Officer
Nomis Solutions



Project Initiative

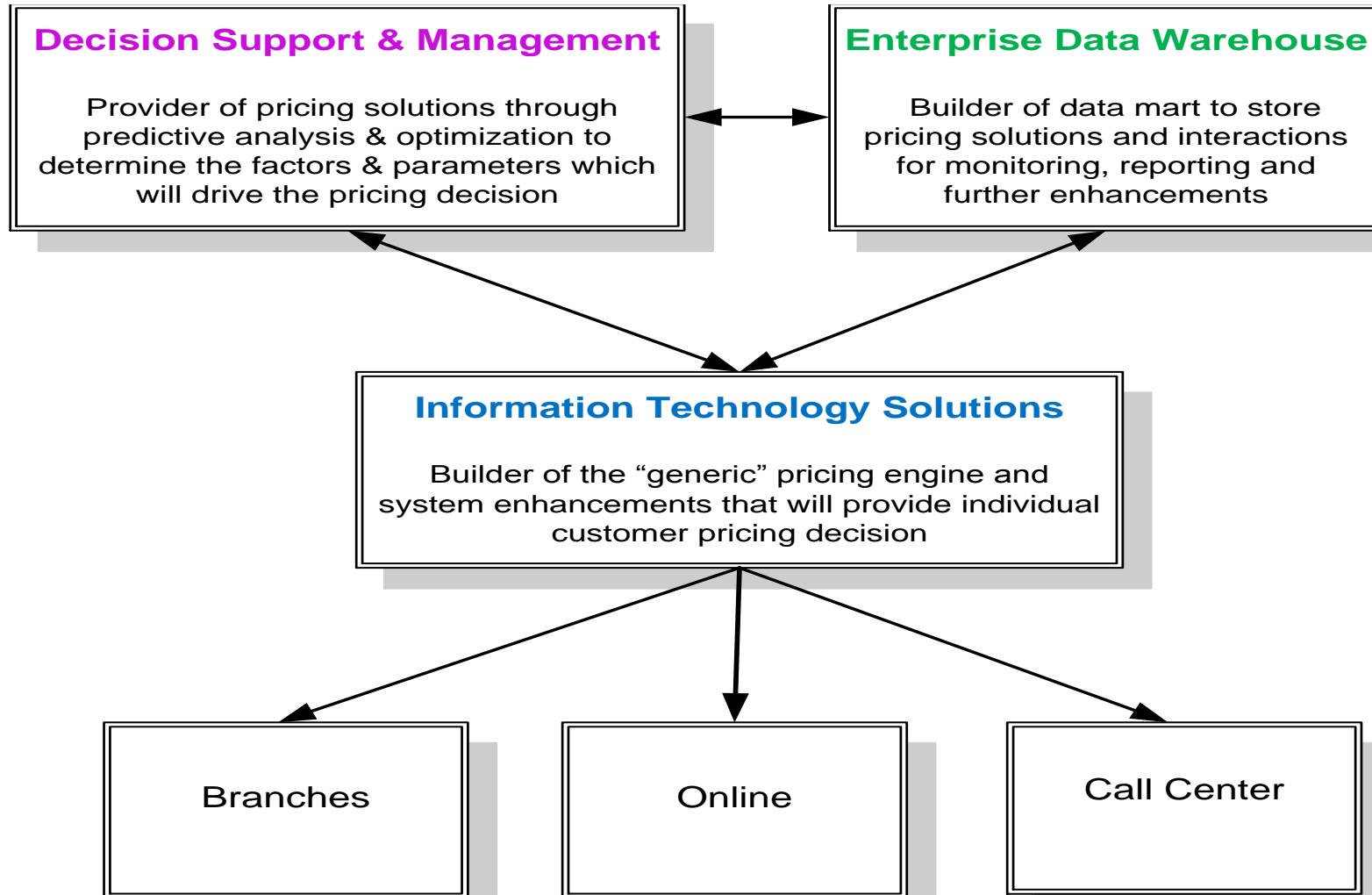
□ Background

- Unsecured lending is a key component of the retail bank.
- Our existing approach relied on broad risk-based pricing and discretion.
- However, this approach had resulted in fewer sales and lower profit

□ Business Case

- Similar to the best practices in the industry, apply dynamic pricing optimization technique for pricing decision.
- Leverage our **internal** expertise to build a pricing optimization framework in house.
- Build a process that regularly monitors segment level sales to re-optimize our pricing and maximize the overall product profit.
- With a modest investment in IT, complex pricing optimization techniques can be simplified for practical deployment within our sales channels.
- Until we incorporate customer relationship fully within the pricing model, pricing discretion capabilities will remain an option.

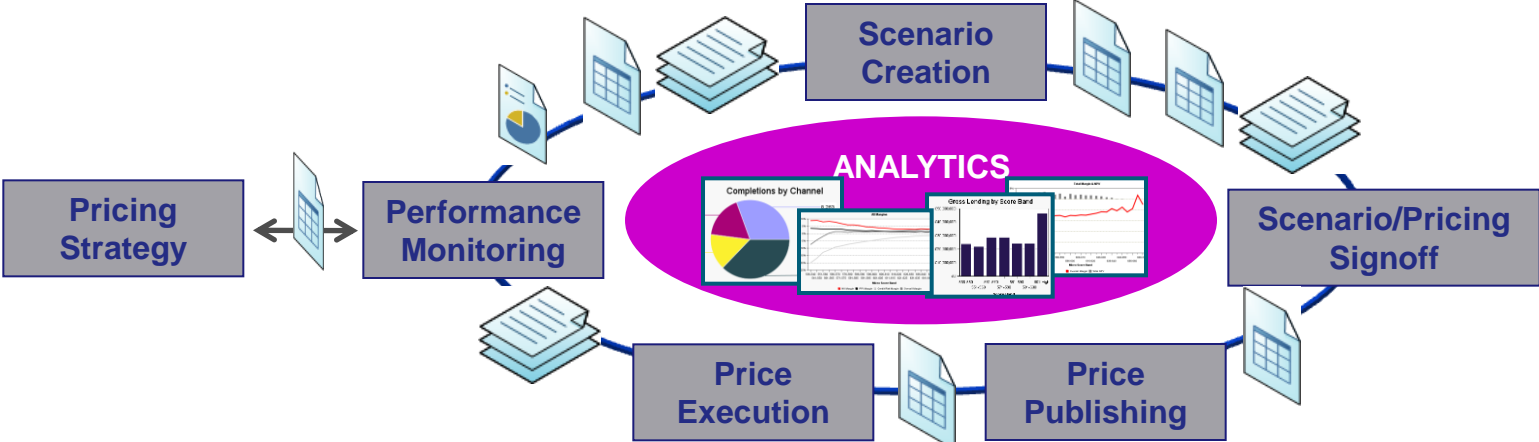
How will it Happen?



Stakeholders

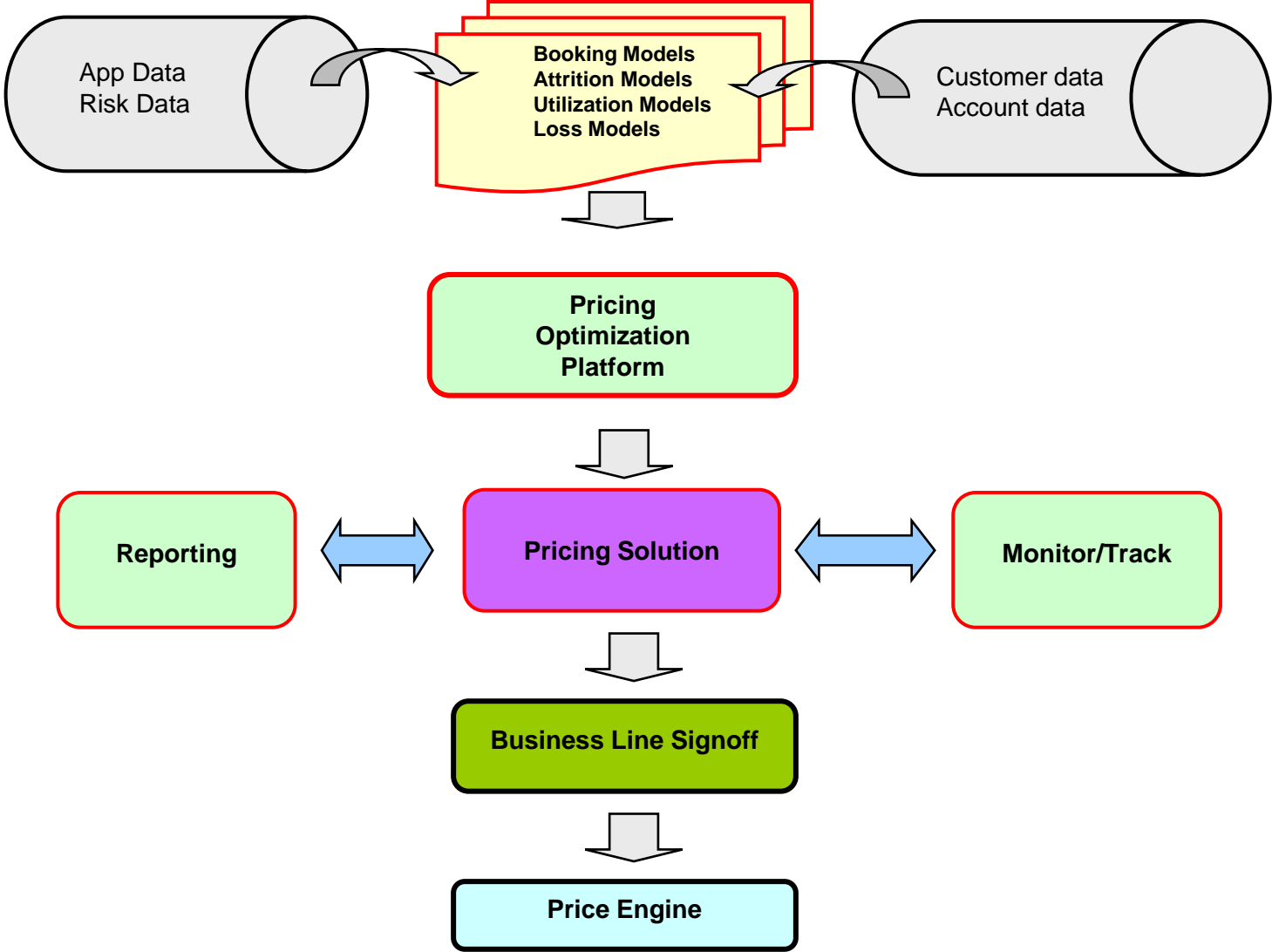
- **Project Sponsor:** Unsecured Lending
- **Solution Provider:** **Decision Support & Management**
- **Data Provider:** Enterprise Data Warehouse
- **Business Requirement:** Integrated Business Solution
- **System Development:** IT&S
- **Price Execution:** Channels
- **Customer Experience**
- **Risk Management**
- **Audit**
- **Compliance**

Pricing Process



?	?	?	?	?	?
Pricing Strategy	Performance Monitoring	Scenario Creation	Scenario and Pricing Signoff	Price Publishing	Price Execution
Business objective Strategic Focus Market Change Competitors	Analyze planned vs. actual results, update models and reports to for better performance	Simulate, optimize, and collaborate to develop pricing scenarios for evaluation	Data driven proposals to adjust pricing for changes in the market, and/or our business goals	Automate the publishing of prices and store an auditable record of pricing decisions	Optimize negotiation ranges, and offers and tracking and incorporating pricing discretion

Analytical Framework



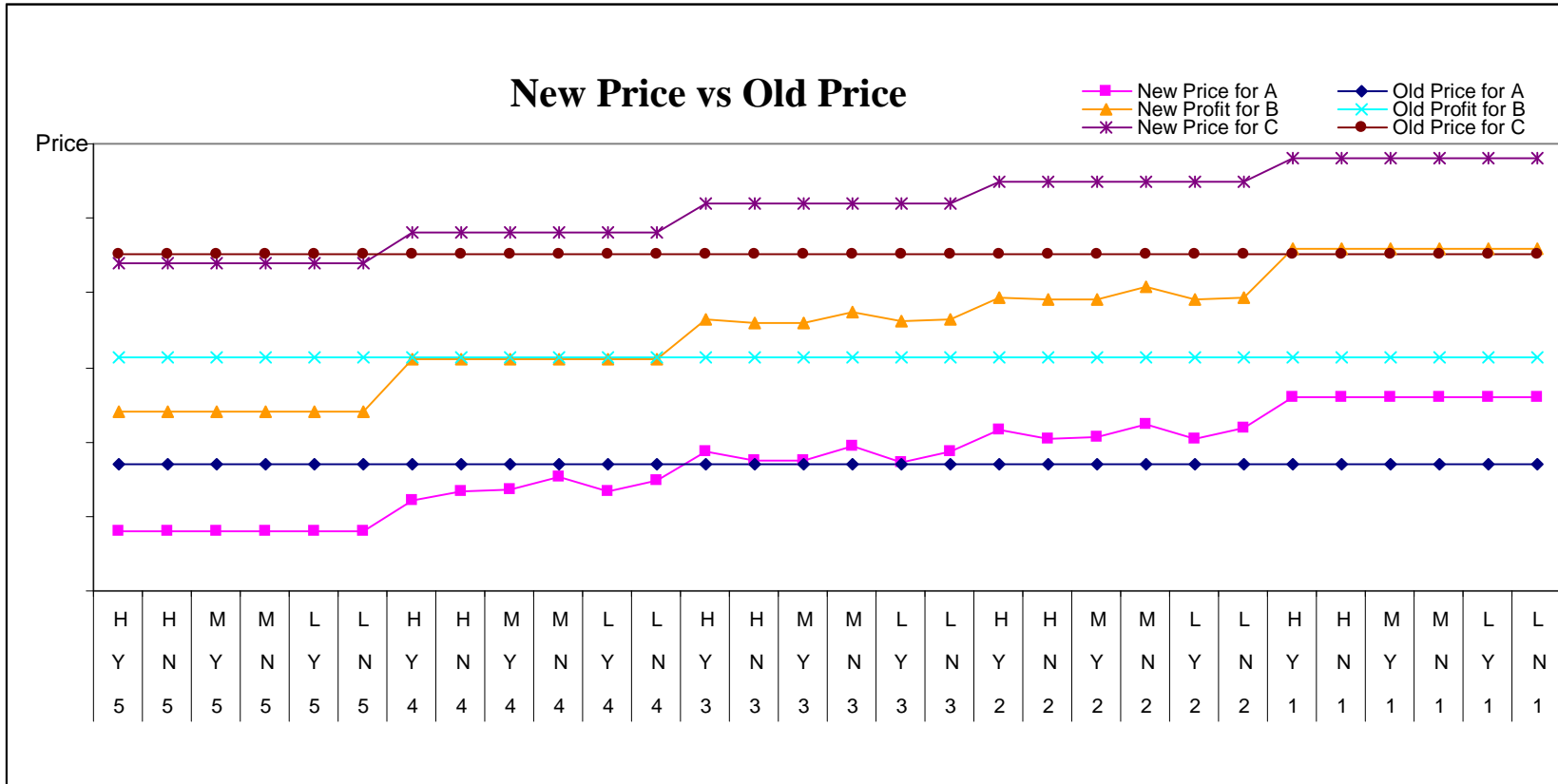
Analytical Methodology

- ❑ **To identify major pricing factors by building different customer behavior models**
 - Booking Sensitivity Model
 - Account Attrition Model
 - Limit Utilization Model
 - Loss Model

- ❑ **To build sensible pricing segments on business objective**
 - Combine business sense and scientific study
 - Customer homogeneity

- ❑ **To deliver better pricing solution by using optimization**
 - Maximize life-time product profit and satisfy certain constraints:
 - Improve booking ratio
 - Maintain loss ratio
 - Improve booking mix of profitable customers
 - Improve profit from certain customer segments

Pricing Solution



- Profitability orientation not volume orientation
- Multiple pricing factors vs. sole pricing factor
- Stay competitive within the unsecured lending market

Lessons Learned

- Pricing evolution as opposed to revolution – make small steps
- Time to market is a key
- Phased approach provides immediate benefit while gaining executive supports
- Need more experts with end-to-end knowledge
- Build robust methodology and flexible infrastructure
- Work around limitations and control the controllables
- Data doesn't lie and let the number talk first
- Identify data gap and collect more relevant data
- Need sufficient price driven behavior data to quantify price elasticity
- Marry business sense and scientific study for customer segments
- Models will need periodically calibration for market volatility
- Re-define pricing strategy to align with business objectives and market
- Pricing is a key strategic weapon and should continue to be invested

Thank You !

