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Product Portfolio Optimization

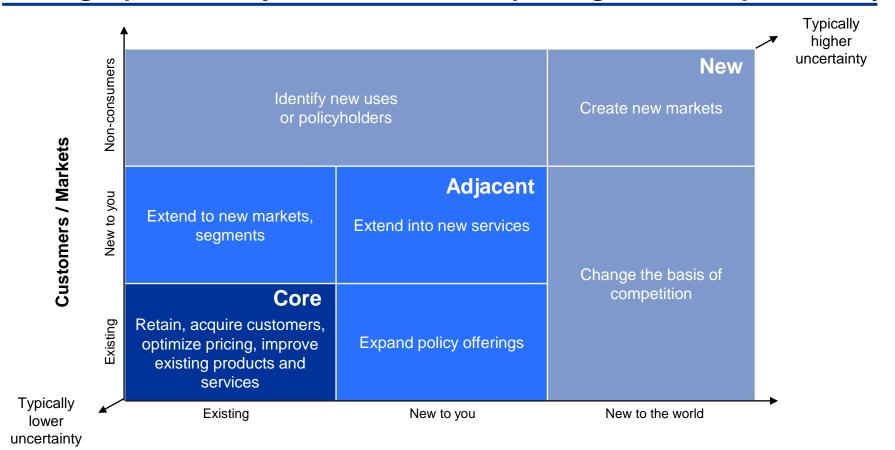
Kelly Cusick, ACAS, MAAA Deloitte Consulting LLP April 1, 2014



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Strategic product objectives focus on top-line growth and profitability

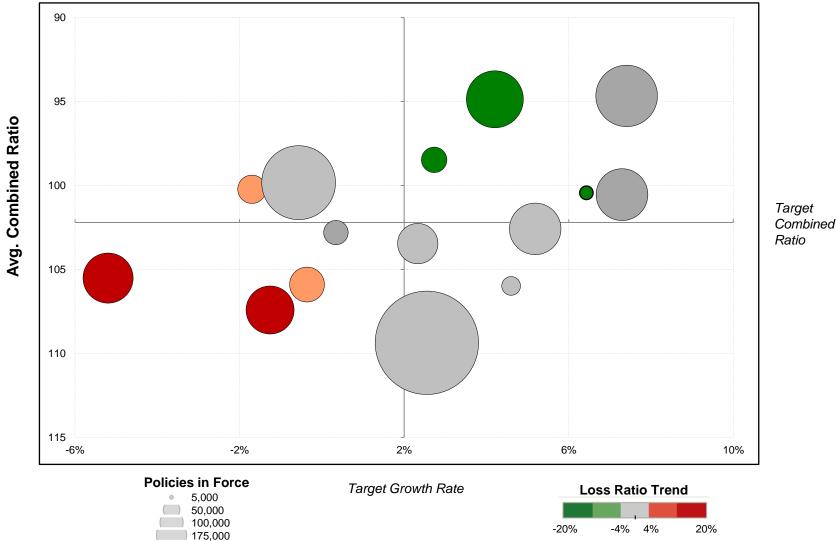


Products / Business Models

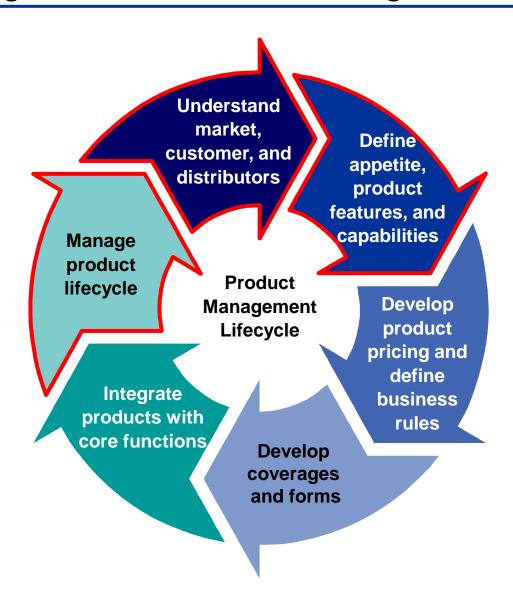
Insurers are reengineering and innovating rather than circling the wagons and defending the status quo

Product managers are caught in the middle of a balancing act

Net Premium Written Growth Rate



Product managers can increase focus on neglected lifecycle areas



Product portfolio optimization starts with a solid foundation

Inputs

strategy

- Clear vision and
- Financial goals
- Market and customer intelligence

Portfolio View

- Stakeholder alignment
- Consistency across operating units and geographies
- Ability to analyze current position and trends



Outcomes

- Better fact base for decisions
- Understanding of exposure to risk
- More efficient use of capital and resources
- More nimble in the market

FOUNDATION

Reporting Capability

Data and Analytics

Tools and Technology

Process

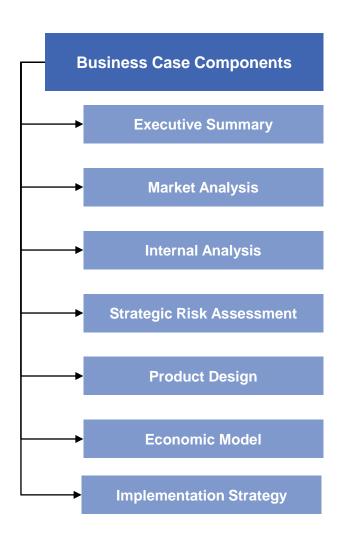
Organization and People

Communications and Change Management

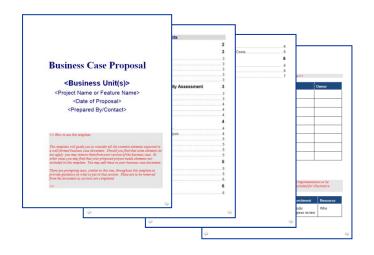
Execution Capability



A business case facilitates a disciplined evaluation of products



- Evaluate that an idea fits the product strategy and overall corporate business objectives
- Leverage the insights provided by all key stakeholders, including operations and systems, during the development of the business case
- Provide a framework for monitoring business outcomes against expectations and targets



Common challenges with performance management

"It takes too long to answer simple questions"

"We are unable to easily accommodate new sources of data or new data elements"

"We never have time to do it right but always have time to do it over"

"We need more than just numbers, its their interpretation and narrative that would be helpful"

"We need to know where to get clean and quality data"

"We have to make inferences to meet our needs"

"We don't have a complete Enterprise view on how data is created or consumed"

"We are unable to drill down to the detail level"

"The same question can come up with many versions of an answer depending on whom you ask"

"The same term can mean different things in our business systems"

"We should be able to support decision making based on advanced analytics"

"We suffer from analysis paralysis"



What We Hear from

Stakeholders

about Measuring

and Monitoring Performance

Distinct reporting needs vary depending on role in the organization

Reporting Types

Executives

...use summarized information to make strategic decisions for the company Strategic



Scorecards and Executive Dashboards

- Comprehensive, summary reports with drill-down
- Key Performance Indicators, strategic trends, alerts
- Consolidated reporting

Management

...use management and financial reports to effectively manage business operations and decision-making capabilities Analytical



Management Dashboards and Metrics

- Drill down analysis
- Trend analysis
- Variance analysis
- Segment level reporting

Operations

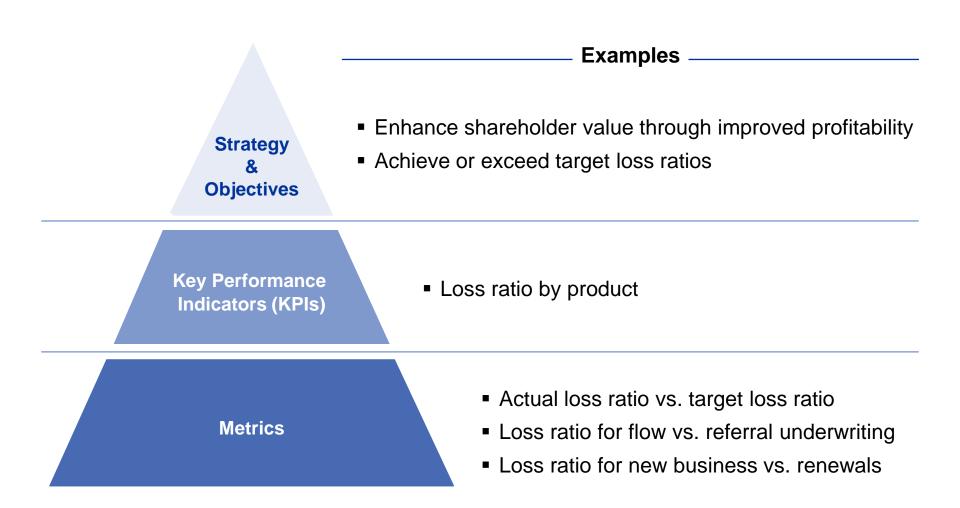
... use detailed information for validation, tracking, and audit trails with minimum user interaction, including generation of monthly reporting packages and transactional data Transactional



Operational and Transactional Results

- Simple lists
- Journal reports
- Summary reports
- Static requests

Well-defined performance management links strategy to outcomes



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FOUNDATION

Reporting **Capability**

Data and Analytics

Tools and Technology

Process

Organization and People

Communications and Change Management

Execution Capability



What the future state could look like

- Integrated view of portfolio performance
 - Granular product view with loss drivers tied to specific coverages
 - Line of Business view
 - Business Unit view
 - Within each of these views for Commercial, all views would have industry subsets
 - Executive dashboards that summarize performance
- Deep understanding of capital allocation
 - Capital requirements at the product level
 - Dashboard that provides visuals on product volatility and impact on capital
- On-going rationalization of the product portfolio
- Product Steering Committee in place to review product performance
 - Review outcomes from rationalization updates
 - Make and manage product Invest, Maintain or Decommission decisions

Product Portfolio Optimization Insurance Pricing Considerations

Rita Zona, Deloitte Consulting LLP Erin Kang, AIG April 1, 2014





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Agenda

Product Development Process

Three Levels of Pricing Sophistication

Pricing Framework

Case Study: Components of Pricing Framework



Product Development Process

An outline of the product development cycle

Define Customer Strategy

Define appetite and product features

Develop coverages and forms

Develop underwriting guidelines

Design and develop rating & pricing framework

Deploy into systems environment

- Identify market place needs
- Define target market
- Estimate market potential
- Identify distribution channels
- Define underwriting appetite, product and service features
- Develop reinsurance program
- Set distribution approach and eligibility requirements
- Define eligibility rules
- Define coverages, key features (e.g. deductibles, limits, etc.) and exclusions
- Draft forms, contracts, and endorsements
- Define coverage rules
- Define form rules
- Define the risk attributes/characteristics consistent with the product /segmentation strategy
- Document the risk assessment rules
- Document the rules for services (e.g. loss control, premium audit, etc.)
- Document the rules for reinsurance
- Define key inputs and data capture
- Design (or leverage existing) rating algorithms for each base and optional coverage
- Develop the rating rules, rates, and factors
- Prepare and submit filing, if required
- Define the key variables that will be included in the discretionary pricing
- Determine source of key variables (application, 3rd party, other)
- Determine variables that will be incorporated in a model and drive the "score"
- Develop rules for the model
- Determine necessary documentation
- Determine policy issuance process
- Determine customer communication plan
- Develop cancellation and renewal policies



Product Development Process

Dimensions of the rating and pricing models

Define Customer Strategy

Define appetite and product features

Develop coverages and forms

Develop underwriting guidelines

Design and develop rating & pricing framework

Deploy into systems environment

Considerations for Rating and Pricing		
Geographies	StatesCountriesRegulatory EnvironmentTerritories	
Coverages	 Deductibles/Limits Retention Property (primary structure and detached structures) and Content Liability (public, employees, etc.) Other optional coverages Rules differ by country and vs. the US 	
Rating Components	Base ratesRating dimensions and factors	
Underwriting Components	Discretionary PricingEligibilityRisk Assessment	
Extended Capabilities	 Data capture for management information Management Reporting Controls 	



Three Levels of Pricing Sophistication

Insurance pricing can be classified in three levels of sophistication:

Rating Framework, Underwriting Models, and Market Demand Models

Level III: Market Demand Models

- · Reflects strategic, regulatory, and market constraint
- · Builds upon results from Level II and Level I
- · Applies customer price elasticity to optimize price

Level II: Underwriting Models

- · Refinement of Level I loss cost estimate
- Generally used to rationalize the process of assigning tiers/credits/debits and company placement
- Predictive variables could be rating and non-rating from internal and external data sources

Level I: Rating Framework

- Loss cost (pure premium) model based on exposure and traditional rating variables
- Rating variables driven by industry and regulatory restrictions



A Solid Pricing Framework is important for

Consistency & Governance

- Aids in controlling model proliferation over time
- Simplifies policy admin systems and pricing framework consolidation in merger and acquisition situations
- Provides a decision framework for setting and modifying assumptions

Ease of Implementation and Efficiency

- Enables a more efficient process for hand-offs and communications between Business and IT
- Results in less work effort to maintain existing pricing frameworks
- Facilitates implementation of new products through re-use of existing pricing frameworks

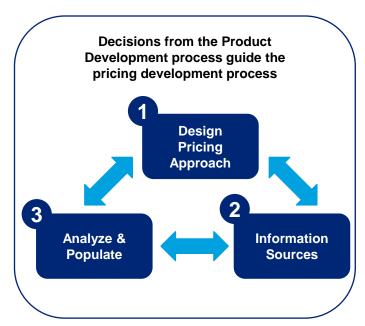
Better Business Intelligence

- Provides the ability to identify and articulate data requirements for improved management reporting
- Allows actuaries and pricing experts to spend more time analyzing trends rather than aggregating and reconciling data

Key Elements of the pricing development process

The pricing framework consists of three dimensions that are dependent upon each other and are informed by decisions made in the product development process. As the framework is developed, there are also a number of design considerations to determine how functional you want the solution to be.

1	
Design Pricing Framework	
Structure	Exposure BaseExperience BaseCredibility
Coverages	Base CoveragesEndorsementsMiscellaneous
Segmentation	Limits/DeductiblesGeographiesRating Dimensions
Adjustments	 Objective risk specific characteristics Terms and Conditions
Expenses/Fees	Expense LoadsPolicy FeesReinsurance Load
Discretionary Pricing	Schedule ModRisk Adjustments (subjective)Market Price



2 Information Sources

- Historical
- Competitor
- Market/Industry
- Third Party

Analyze & Populate

- Univariate
- Multivariate
- Competitor
- Rating Bureau



Pricing Framework

Components essential to the creation of a valuable pricing framework

Data Inputs

Assumptions

Calculations/ Methodologies

Outputs

Components

- Company
- Line of Business
- Third Party Data
- Characteristics of Risk
- Base Rates
- Rate Relativities
- Trends
- Claim Frequency/Severity
- Acquisition and Overhead Costs

- Base Coverages
- Miscellaneous Coverages
- Endorsements
- Deal Structure

- Benchmark,
 Technical, and Target
 Price
- Underwriting Risk Adjustments
- · Actual Premium
- Management Information

 Capture adequate inputs to allow for future refinement of variables used in pricing

- Automatic prefill to promote efficiency by avoiding double-entry and streamlining underwriter workflow
- Maintain current, consistent & relevant assumptions
- Provide flexibility and accuracy of risk classification
- Centralize governance and scheduled update of assumptions
- Utilize consistent methodologies for pricing similar risks
- Allow for flexibility and customization of methodologies
- Provide efficiency of calculations

- Capture rationale for underwriting deviation
- Allow for price monitoring on a risk by risk basis
- Track quote status for bound as well as lost business
- Streamline documentation
- Aggregate with inputs to create dashboard & reports



Considerations

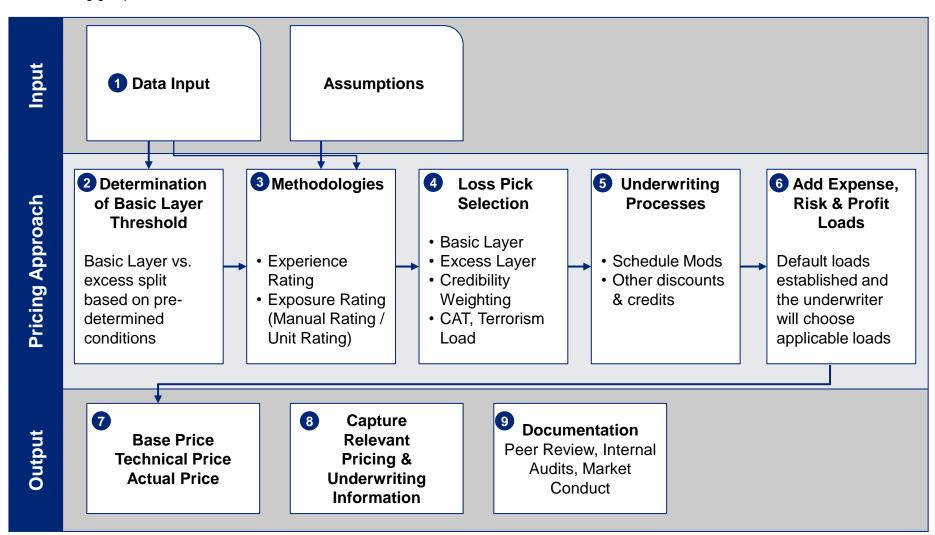
Business

Pricing Framework Success Factors

- Design Considerations
- Stakeholder Alignment
- Technology Considerations
- Consistency & Governance
- Documentation
- Profitability Management

Case Study: Components of Pricing Framework

The diagram below displays the structured processes to develop base, technical, and actual prices for products, involving input and feedback from underwriting groups and other stakeholders.



Additional Considerations by Segment

- Commercial Insurance vs. Personal Insurance
- Property Lines vs. Casualty Lines vs. Specialty Lines
- Large accounts vs. Mid-Market or Small Business Segments

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