

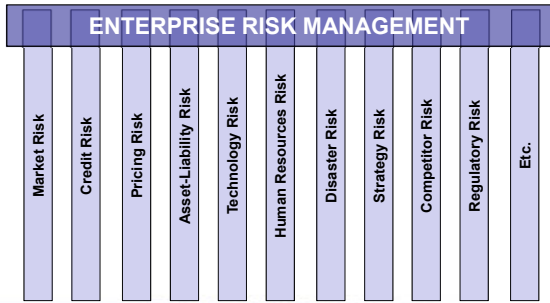


Integrating ERM into Strategic Planning and Other Decision Making

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ERM = integrated picture of all key risks




ENTERPRISE RISK MANAGEMENT

- Market Risk
- Credit Risk
- Pricing Risk
- Asset-Liability Risk
- Technology Risk
- Human Resources Risk
- Disaster Risk
- Strategy Risk
- Competitor Risk
- Regulatory Risk
- Etc.

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ERM process cycle



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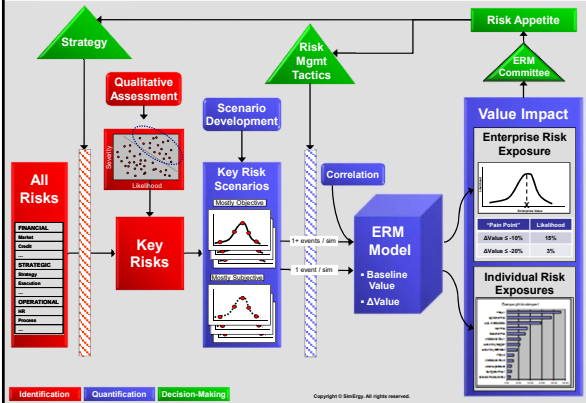
    graph TD
      A((Risk Identification)) --> B((Risk Quantification))
      B --> C((Risk Decision-Making))
      C --> D((Risk Messaging))
      D --> A
  
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Traditional approach fails to integrate ERM into decision making

	Traditional Approach
Do metrics support decision-making?	<ul style="list-style-type: none"> Not for operational or strategic risks Only risk, not return
Do ERM models work?	<ul style="list-style-type: none"> Complex <ul style="list-style-type: none"> Unreliable quality Slow response time Lack of transparency
Is there buy-in from business units?	<ul style="list-style-type: none"> Corporate-driven, not enough business segment input Compliance-oriented

Value-Based ERM Framework

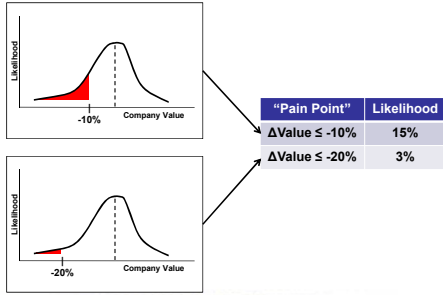


Quantifying individual risk exposures



Enterprise risk exposure “pain points”

ILLUSTRATIVE EXAMPLE



Value-based approach supports integration of ERM into decision making

	Traditional ERM	Value-Based ERM
Do metrics support decision-making?	<ul style="list-style-type: none"> Not for operational or strategic risks Only risk, not return 	<ul style="list-style-type: none"> Metrics for all risks ΔValue = rigorous business case
Do ERM models work?	<ul style="list-style-type: none"> Complex Unreliable quality Slow response time Lack of transparency 	<ul style="list-style-type: none"> Practical Reliable quality Fast response time Transparency
Is there buy-in from business units?	<ul style="list-style-type: none"> Corporate-driven, not enough business segment input Compliance-oriented 	<ul style="list-style-type: none"> Business unit-driven / Corporate for consistency Supports business segment goals (FMEA)

Value-based ERM strengthens the strategic planning process

- Aligns baseline assumptions
- Aligns scenario assumptions
- Provides dynamic strategic planning

Aligns baseline assumptions

- Aggregating projections
 - Identifies model inconsistencies (sales force projection example)
- Analyzing trends
 - Comparing plan period projection to (a) recent financials; (b) industry sector expectations; and (c) projections beyond plan period
- Analyzing the valuation
 - Reasonability check versus market capitalization
 - Results by business segment
- Documenting and disseminating
 - Broadens awareness/understanding of baseline strategic plan (example of identifying/resolving different conception of Plan commitments)
- Developing stress tests
 - Strengthens understanding of what is, and is not, included in baseline

Aligns scenario assumptions

- Consistent rigor in developing risk scenarios (FMEA)
 - Guided by FMEA expert
 - Consistent presence of corporate ERM team
- Standardized definitions of risk scenarios
 - Relies on potential quantitative impact on value (and to lesser extent likelihood) rather than rely on subjective labeling, such as "pessimistic"
- Uniform assumption about external environment
 - Assumptions shared across enterprise, allowing reconciliation of any differences

Provides dynamic strategic planning

- Ability to perform strategic planning (and evaluate other decisions) on ad hoc basis
 - Reflects changes in internal or external environment
 - Reflects changes in strategy or tactics
 - Models "what if" scenarios
 - On a consistent and integrated basis
 - At enterprise and business segment level
 - Provides robust risk-return info for any decision – strategic planning, strategic, tactical, transactions, mitigation
 - Δ return = Δ baseline strategic plan projection and key metrics
 - Δ risk = Δ enterprise risk exposure and sub-enterprise exposures

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