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Application and Challenges

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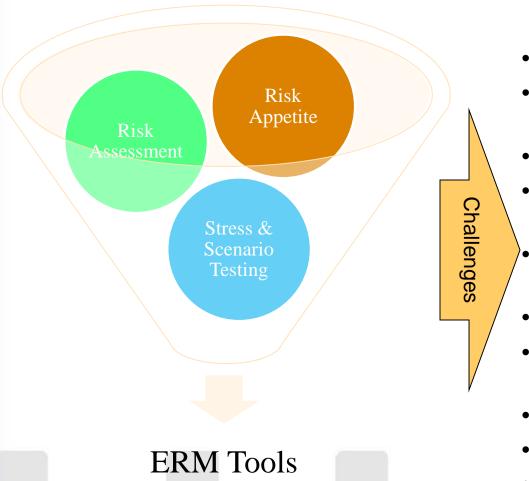
Topics Covered



- ERM tools & its practical challenges
- RCSA & KRI
- Risk Appetite and its importance in business strategy

ERM Tools & its Practical Challenges

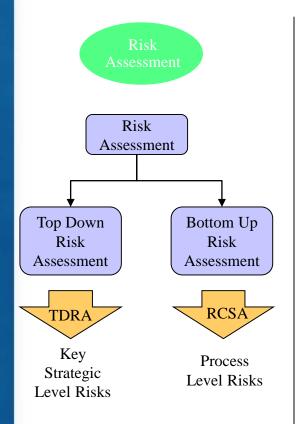


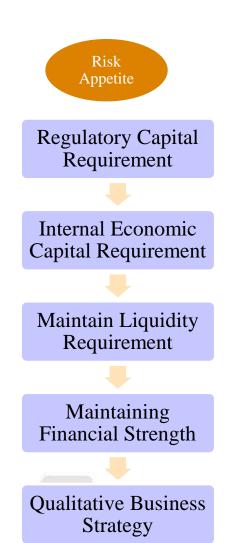


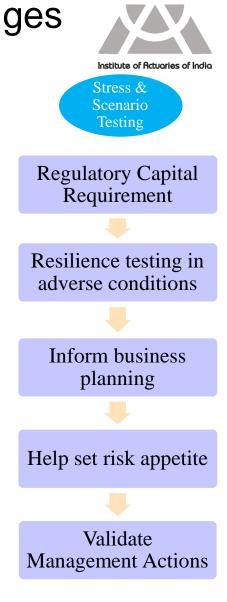
- Assessing ERM's Value
- Privilege to Risk Information
- Defining Risk
- Risk Assessment Method
- Qualitative Versus Quantitative
- Time Horizon
- Multiple Potential Scenarios
- RM Ownership
- Risk Reporting
- Simulations and Stress
 Tests

ERM Tools & its Practical Challenges









RCSA & KRI



RCSA – It is the 'Bottom Up' tool used to proactively identify, assess, manage and report risks and controls
It is done in three stages:

1.Pre-RCSA

Define Materiality Framework

Review SOP

Review Audit Report

Review Customer Complains

Review Loss Data Events

2.During-RCSA

Identify and document risks

Access inherent risk based on impact and likelihood

Document & assess existing controls based on design i.e. nature, type & documentation

Access residual risk considering existing controls

Create test plan for testing control operating effectiveness

3.Post-RCSA

Conduct the control operating effectiveness test to ascertain risk ratings

Create risk management strategy for risks outside of tolerance

Assess the effectiveness of the RCSA process by

- Validating it with future audit findings
- Sample testing the control operating effectiveness test

RCSA & KRI



Key Risk Indicators (**KRI**) – is an operational or financial variable that provides a reliable basis for estimating the likelihood and the severity of one or more risk events

Why KRI?

"Risk is like fire: If controlled it will help you; if uncontrolled it will rise up and destroy you."

-Theodore Roosevelt



- KRI analytics and reports are the smoke detector
- Use the reports, pay attention to them
- Reduce the variability in process execution
- Early warning for management
- Increased responsiveness
 Minimize control failures or
 loss events

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RCSA & KRI



KRIs should be?

- Relevant, strongly related to the frequency of operational failure and/or severity of impact.
- Non-redundant: If two indicators are strongly correlated, only one should be considered.
- Measurable: As much as possible, indicators should be objectively (and independently) quantifiable and verifiable.
- Easy to monitor: Indicator tracking should not be too cumbersome and expensive.
- Auditable: Indicators and their sources should be properly documented
- Leading KRIs are measures that are considered predictive in nature. They are derived from metrics that can help to forecast future occurrences.
- Lagging KRIs are metrics based on historical measures. These help to identify trends in the firm

Example of KRIs

- The percentage of all claims received during the preceding 12 calendar months which were flagged as suspicious Lagging
- The number of policy holder complaints with respect to the work of the claims assessors Lagging
- No. of open positions in the Sales team beyond 30 days Leading
- The number of staff w ho have not yet completed all primary fraud- detection training required for their job function and grade, as a percentage of the total number of permanent employees Leading
- The number of customer e-banking accounts which have been compromised specifically through phishing and/or Trojans Lagging

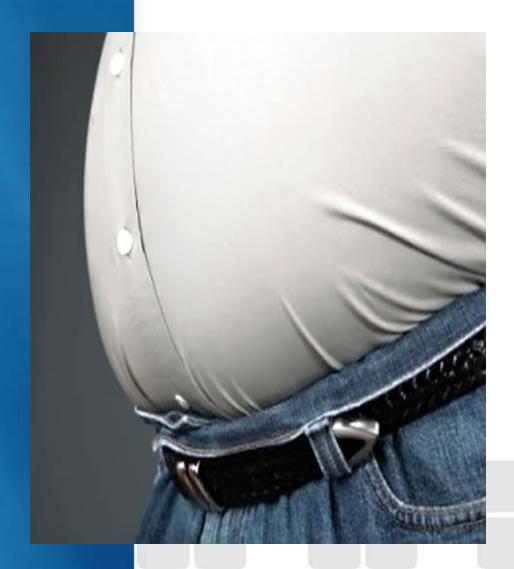




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Appetite







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Medical Report



Test Name	Results	Units	Bio. Ref. Interval
LIPID PROFILE, BASIC, SERUM (Spectrophotometry, Calculated)			
Cholesterol Total	125.00	mg/dL	<200.00
Triglycerides	183.00	mg/dL	<150.00
HDL Cholesterol	30.60	mg/dL	>40.00
LDL Cholesterol, Direct	74.00	mg/dL	<100.00
VLDL Cholesterol	20.40	mg/dL	<30.00
Non-HDL Cholesterol	94.40	mg/dL	<130.00

Interpretation

NATIONAL LIPID ASSOCIATION RECOMMENDATIONS (NLA-2014)	TOTAL CHOLESTEROL in mg/dL	TRIGLYCERIDE in mg/dL	LDL CHOLESTEROL in mg/dL	NON HDL CHOLESTEROL in mg/dL
Optimal	<200	<150	<100	<130
Above Optimal	<u> </u>	-	100- 129	130 - 159
Borderline High	200-239	150-199	130-159	160 - 189
High	>=240	200-499	160-189	190 - 219
Very High		>=500	 >=190	>=220

Height/Weight, Blood Pressure, Pulse rate, Cholesterol, Blood sugar

Risk is Uncertainty of Future



Larger Deviation from the Mean
Who Can bear larger deviation more?

Why?





Tales of Two Companies





Billionaire

Company-A

- •Net Worth=1000 Cr
- •Can he take infinite risk? Why?
- •How much maximum risk he can take (will not add more money)
- •Can he afford to breach regulatory norm or reputational risk?
- •How he will drill down each risk acceptance
- •Will he wait to exhaust to his individual risk limits?



Few 1000s Company-B

New Worth=1000

- ✓ Yes, if ready to add more money
- ✓ Max up to 1000- Risk Appetite
- ✓ No- define risk appetite for these two risks
- ✓ Drill money based on individual risks
- ✓ Define tolerances before exhaustion

Risk Appetite



- JP Morgan 4.15 Report
- Risk appetite is the maximum risk the Company can take to achieve its business objectives
- Its application (when you monitor) work as an early warning signal tool
- Example: During the FY 2018-19, the maximum capital that it will use is Rs.100 to achieve the NB target of Rs.1000 Cr.- Warning 90% consumption by October
- Risk Appetite: <u>Qualitative</u> or <u>Quantitative</u>
- Quantitative- Capital, Profit, Maximum Losses etc
- Qualitative- Statement, "Zero tolerance for regulatory and reputational risk"

Top Down/Bottom Up Risk Appetite



Top Down

 Company level risk appetite Capital, Profit, Key Performance Indicators etc

Bottom up

- Defining maximum tolerances for each risks under different risks categories
- Mortality, Lapse, Interest rate, customer complaints lower industry bench mark

Decision Making

- Any business decision that bring new risks, the overall risk of the Company should not increase.
- Pricing New Products, Business planning, Writing large Group Business,

Summary



- ERM tools Risk Assessment, Risk Appetite & Stress and Scenario Testing
- RCSA It is a 'Bottom Up' tool to identify, assess, manage and report risks and controls effectiveness
- Assessing the effectiveness of RCSA process is very important to keep it updated
- KRIs should be used as early warning indicator. They can be of leading or lagging nature.

Risk Appetite

- Important tool for risk management
- Provide objectivity is taking the maximum risk and staying within those limits both at Company and risk levels
- Key tool for decision making