The Riskion Process Overview

Riskion® is a revolutionary, web-based risk management tool designed to help enterprise-level businesses identify, accurately measure, and mitigate potential risks (or increase potential gains) through professional crowdsourcing and mathematical models that will end your reliance on inferior spreadsheet swags.

To be successful in business, you should always be aware of events that could potentially impact your business or employees. By using pure ratio-based mathematics combined with experienced minds from around the world, Riskion® technology is able to identify any events, causes, and outcomes to help you allocate necessary resources to mitigate these risks, or to increase opportunities.

Use our structured, disciplined process to eliminate confusion and embedded team collaboration and project management tools to improve communication and buy-in throughout your enterprise.

Riskion's comprehensive risk identification and measurement algorithms help you make better risk decisions that are better understood throughout your organization in less time than ever before.

A Riskion model can be Risk, Opportunity, or Mixed. For a Risk Model, the process would be:

1 IDENTIFY/STRUCTURE	2 LIKELIHOOD OF EVENTS	3 IMPACT OF EVENTS	4 RISKS	5 CONTROLS	6 CONTROLLED RISKS

1. identify and structure the Riskion elements -- the risk events, threats (sources) and objectives, contributions, participants, and other model definition
2. define and accurately measure the likelihood of the threats, and the likelihood of the events given the threats
3. define and accurately measure the impact of the objectives, and the impact of the events with respect to the objectives
4. calculate and review the risks in flexible representations (grids, charts, curves, bow-tie, risk map)
5. identify controls or treatments, and allocate resources to reduce the risks
6. review the resulting risk after controls are applied

For Opportunity Model, the events being identified are opportunity events instead of risk events, we also identify the stimulants to increase the "opportunity" instead of controls.

1 IDENTIFY/STRUCTURE	2 LIKELIHOOD OF EVENTS	3 IMPACT OF EVENTS	4 OPPORTUNITIES	5 STIMULANTS	6 CONTROLLED OPPORTUNITIES

1. identify and structure the Riskion elements -- the opportunity events, sources, and objectives, contributions, participants, and other model definition
2. define and accurately measure the likelihood of the sources, and the likelihood of the events given the sources
3. define and accurately measure the impact of the objectives, and the impact of the events with respect to the objectives
4. calculate and review the opportunities in flexible representations (grids, charts, curves, bow-tie, risk map)
5. identify stimulants, and allocate resources to increase the opportunities
6. review the resulting opportunities after stimulants are applied

A Mixed model is a combination of Risk and Opportunity models -- here an event can either be a risk or opportunity.

Risk Model Process In-depth

Riskion implements a collaborative process for identifying events, measuring their risk, and deciding what preventative actions to take, if any, in order to reduce risks.

- Riskion provides a mechanism for executive, mid-level, and operational managers to collaborate in identifying, analyzing, and reducing risks to their organization. More specifically:
  - Riskion provides mechanisms for deriving ratio scale measures of the likelihood of events, ratio scale measures of the impact of events, and ratio scale measures of the risk of events.
  - Riskion makes it easy to drill down to examine risks relative to specific objectives and risks relative to specific causes.
  - Riskion provides a mechanism to collaborate in identifying treatments to reduce risks and to estimate the relative effectiveness of such treatments.
  - The Riskion process and measures enable decision-makers to use a variety of methods to determine which risk events to address and/or which treatments to implement:
    - This can be done either by using structured discussions (possibly aided by simulations or AHP decision models such as with Expert Choice Riskion
    - and/or with a non-linear programming model that determines an optimal mix of treatments to implement, subject to resource constraints as well as legal and managerial constraints

More specifically, the Riskion process framework consists of:

- Identifying possible events that would result in strategic losses
  - While strategic refers to losses that will impact the achievement of strategic objectives, Riskion can also be applied to tactical or project risk.
  - Riskion provides a variety of tools to identify and organize risk events including collaborative brainstorming, structuring, and categorization.
- Measuring and communicating risks
  - Measuring/estimating likelihoods (probabilities) of causes/hazards/threats.
    - Causes or hazards or threats (used synonymously in Riskion) are sources of events, rather than events themselves. Some risk events may depend on causes or hazards or threats while others may not.
    - Unlike risk events that result in one or more losses, causes, hazards or threats do not, in and of themselves cause losses.
    - Causes or hazards may lead to other cause or hazards which eventually lead to one or more events.
    - Riskion can accommodate a hierarchy of causes or hazards.
    - Causes or hazards may or may not be uncertain.
    - Riskion provides tools to measure/estimate the likelihood or probability of causes, hazards, or threats that are uncertain.

- Measuring/estimating the vulnerabilities of events to causes/hazards. The vulnerabilities are actually conditional probabilities of the events given the causes/hazards/threats.
- Synthesizing the likelihood of events as the sum products of the likelihoods of the event's causes and the vulnerabilities of the event to the causes.
- Measuring/estimating the impact or consequences of each event to each strategic objective to which a loss would occur.
- Measuring the importance of the strategic objectives to which loss would occur.
- Synthesizing the impact of each event as the sum product of the event's impacts on objectives and the importance of the objectives.
- Computing risks for each event as the product of the ratio scale measures of the event's overall likelihood and overall impact.
- Communicating risks in a variety of views, including:
  - the overall risk for each event;
  - risk of each event with respect to specific hazards;
  - risks of each event with respect to specific objectives;
  - "Bow-Tie" diagrams showing, for each risk, the causes, vulnerabilities, and impact on objectives
  - a "Heat Map" bubble plot of likelihood vs. impact for each event the bubble size proportional to the risk.

- Identifying and communicating ways   to reduce risks, including:
    - treatments to reduce the likelihood of causes
    - treatments to reduce vulnerabilities of events to causes;
    - treatments that mitigate (reduce) the consequences of events on objectives;
    - "Bow-Tie" diagrams to aid in identifying, selecting (if not by optimization), and communicating risks and risk management decisions.
- Determining optimum allocations of resources to reduce risks, considering:
    - constraints, including costs (budget);
    - Dependencies;
    - musts
    - must-not
    - legal requirements;
    - and politics!