Quantifying third party risk: modeling interconnectedness

Milliman

Assessments and risk registers are inadequate

Standard TPRM approaches revolve around assessments, questionnaires, site visits, controls testing, SLA monitoring, etc. resulting in some type of red / amber / green (RAG) risk ranking. Third parties are a key dependency in a financial institution's risk profile and may be critical to enterprise resilience. Fundamentally, vendor relationships create a network which may introduce hidden risks and aggravate fragility, blindsiding management with risks such as data breaches.

Unlike traditional frameworks, CRisALIS is a causal model that quantifies and aggregates vendor risk. Vendor is a complex risk due to dependencies, interconnectedness and information asymmetry. Modeling vendor risk must do more than analyze historic events, rather it must detect warning signals, model plausible threats (cyber), and show the 2nd and 3rd order impacts of risks materializing so that decision makers can implement effective strategies.

Complex Risk Analysis "CRisALIS"

CRisALIS provides a bespoke holistic forward-looking approach to modelling how third party risk may materialize including fourth party risk. CRisALIS is based on complexity theory and incorporates data driven analysis, expert-derived causal modelling and artificial intelligence. It learns and evolves as your understanding of the risk landscape evolves It:

1. Leverages qualitative and quantitative data to enhance credibility of the model and adapts to new information as it becomes available
2. Expresses the outcome in a financial loss distribution with underlying drivers
3. Distinguishes "signal from noise" from unstructured data to identify anomalies or threats to third or fourth parties
4. Provides real insights into how outcomes occur enabling meaningful scenario analysis
5. Incorporates Milliman's tried and tested intellectual property and proprietary methodology
6. Explains tail risk and its components enabling mitigating actions and strategic decision making

Benefits

- Analyze either your enterprise risk or for business unit(s)
- Identify the drivers of specific outcomes, which creates the ability to optimize a mitigation strategy
- Explain non-linear relationship between risk events, including causes, triggers and potential tipping points
- Provide executive information which allows for establishing and monitoring of the vendor risk tolerance and other key metrics in real time
- Elucidate the root causes and cumulative impact of vendor risks enabling better decision making (e.g., 2nd and 3rd order effects impacting vendors or the firm, control decisions, external threats, etc.)

Key Features

1. Incorporate multiple scenarios to test resiliency
2. Learns and adapts as information evolves
3. "What if" and reverse stress investigations
4. Aggregates or decomposes vendor risk by drivers and triggers
5. Easy for non- modelers to engage and use