Entreprise risk management

Foly Ananou, PhD

Course objectives

- Master ERM fundamentals : understand the principles, frameworks, and benefits of ERM

- Analyse and measure risk: learn to identify risk, assess and quantify risks using qualitative and quantitative tools

- Understand the implementation of ERM and best practices
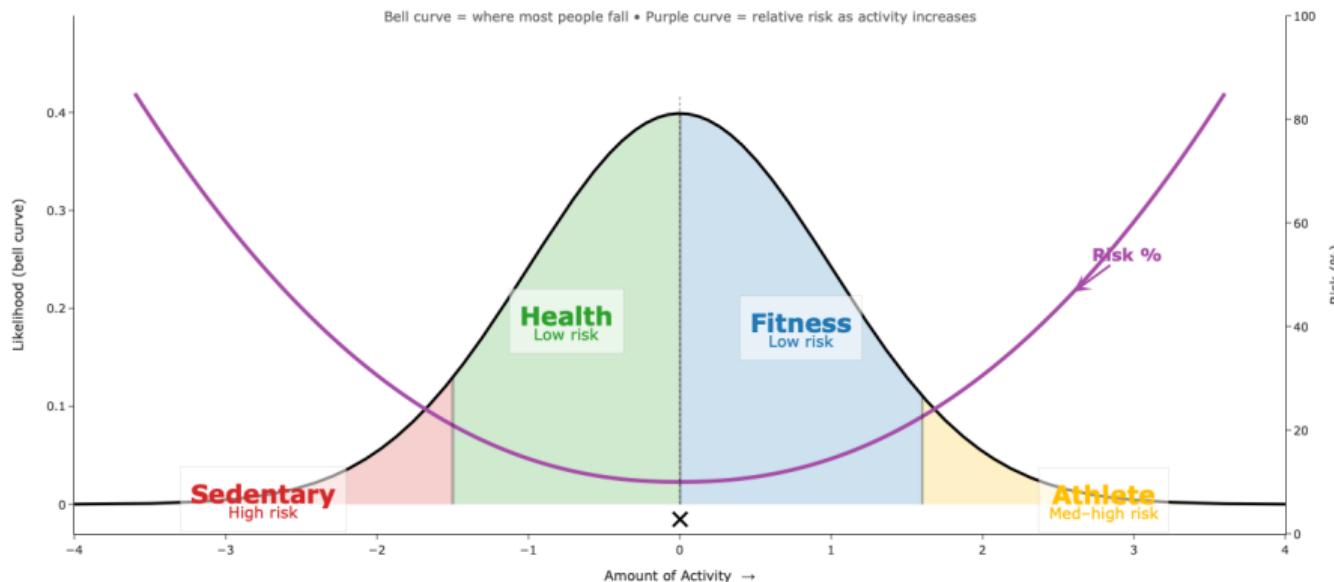
ERM: fundamentals

Understanding risk: preview

- Let consider the following situations:
    - You are in vacation in Cote d'Ivoire and decide to have an outdoor gathering with friends at the beach. ↣ What could possibly go wrong ? How likely could this happen ? if it does happen, will it be very harmful ? What can you do to prevent the event from happening or reduce the impact ?
    - You got it involve in a car crash ↣ Is it necessary someone fault or is it just one of those things that happen in life ?

Understanduing risk: a definition

- Berstein (1996) defines risk as the uncertainty around the outcome of a decision, process or event which can be negative (losses) or positive (benefits or opportunities).

Risk vs Reward: Activity Level

Understanduing risk: key characteristics of risk

- Uncertainty : outcomes are not guaranteed or predictable

- Dual nature: risk is not only about threats or losses, it can also includes opportunities

- Measurable dimensions:
    - $\boxed{\textbf{exposure}} \rightarrowtail$ what is at stake ?

    - $\boxed{\textbf{probability}} \rightarrowtail$ how likely is it possible ?

    - $\boxed{\textbf{severity}} \rightarrowtail$ how bad (or good) coud it get ?

    - $\boxed{\textbf{time}} \rightarrowtail$ how long ?

    - $\boxed{\textbf{correlation}} \rightarrowtail$ can it escalate or drive other risks ?

Understanduing risk: categorization

- Can you identify the risk type in the following sceenarios ? (let guess together)
  - A large international bank experiences a sophisticated ransomware attack that encrypts critical customers data and shuts down online banking services for almost 2W.

  - The government announces overnight that all cryptoccurrencies transactions are banned taking effect immediately, forcing fintech companies to halt operatiions immediately.

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