
What is Risk?

“UNDERSTANDING RISK

is the key to business continuity and disaster recovery.”

Understanding the Unthinkable.

In today’s world of complexity, modernity and globalization; Business Continuity and Disaster Recovery are necessary to keep a business up and running when faced with the unknowable. It seems that risk is higher today than ever before and in our interconnected world, our awareness of risk itself drives fear, and sometimes terror, higher and higher.

To truly understand risk, we have to move past the terror and encounter the unthinkable with a sense of **informed hope**. Because understanding risk is the foundation of understanding risk mitigation, and is vital in the understanding of Business Continuity and Disaster Recovery.

“Risk, by definition, is an exposure to the chance of injury or loss. There is something important to know about the human psyche when considering that definition: we are not wired to think about personal harm or loss.”

What We Can’t Dream Of

What we can’t dream of is our own death, at least not most of us. If you ask a hundred people to raise their hand if they have had a dream of falling, most if not all will put their hand up. If you ask them to keep it up if they go *splat* on the ground after falling, almost everyone in the room will put their hand down. (Try this with your friends!)

We can’t dream of our own destruction. At a subliminal level, our will to survive is simply too strong. We flee the psychological fright of the dream and usually wake up shaken, but not splattered. This ability of ours to feel fear but not vision our own deaths is a powerful survival skill.

None-the-less, this built in risk aversion makes understanding the full range of risk we are facing challenging at the personal level.

At BAM, we believe that informed hope can trump inner fear and lead to sound thinking about risk management and mitigation.

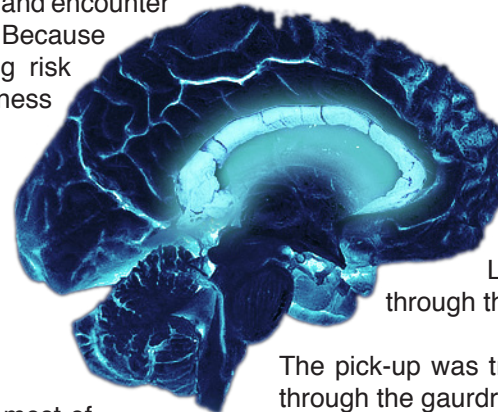
In *The Gift of Fear*, Gavin de Becker argues that “*True fear is a gift. It is a survival signal that sounds only in the presence of danger. Yet unwarranted fear has assumed a power over us that it holds over no other creature on Earth. It need not be this way.*”

As Private and Public Sector Leaders, we need to consider risk for our organizations, and we are psychologically handicapped from the start.

It might be said that there is more risk in today’s world. It can certainly be said we are more *aware* of risk than ever before because of the media; but, even as we have become more aware, the definition of risk still eludes us. **After all, how do you understand the unthinkable?**

“You know in you limbic brain. The seat of instinct. The mammalian brain. Deeper, wider, beyond logic...What we think of as a ‘mind’ is only a sort of jumped-up gland, piggybacking on the reptilian brainstem and the older, mammalian mind, but our culture tricks us into recognizing it as all of consciousness. The mammalian spreads continent-wide beneath it, mute and muscular, attending its ancient agenda.”

- William Gibson, “Pattern Recognition”



Just outside Flagstaff, AZ on U.S. Hwy 100:

Look at the picture below, see where this driver broke through the guardrail, on the right side of the culvert?

The pick-up was traveling about 75 mph from right to left when it crashed through the gaurdail.

It flipped end-over-end and bounced off and across the culvert outlet, and landed right side up on the left side of the culvert, facing the opposite direction from which the driver was traveling.

The 22 year-old driver and his 18 year-old passenger were unhurt except for minor cuts and bruises.





“Imagine the new level
of understanding the young drivers reached when they
realize the consequences could have been much higher.”

Any Final Definition of Risk...

Includes the exposure to the chance of injury or loss. Given this definition, Private and Public Leaders should be informed by what's probable, what's possible, and what they're risking.

The Probable:

The probable or “probability” is often used in actuary and traditional insurance models to calculate risk. These models are applied to garner a better understanding of the likelihood of an event that may cause harm; such as a propensity for car accidents amongst teen drivers or the number of “slip and fall” accidents in a factory. Frequency probability is used to estimate the probability of an event happening based on the number of times this event has happened in the past. The basic model for this risk is the following equation:

$$P=F/N$$

where P is the probability of an event occurring, F is the amount of times the event has occurred, and N is the total of the times the event has occurred and the times the event has not occurred.

In other words, frequency probability relies on historical data to conclude how likely an event is to occur again.

The Possible:

The possible or “possibility” is often used to model risk and likelihood of events when there is uncertain or imprecise information, as well as events that have no historical data. These models are highly applicable in the areas of terrorism, weather, and new financial constructs in which historical data can be a poor sample base. While there are robust philosophical debates regarding possibility, there is a mathematical model for understanding theoretical probability called possibility theory.

Whereas probability uses one measure to calculate risk (probability), possibility theory uses two measures: possibility and necessity. Both measures range from 0 to 1, where a 0 value of possibility means an event is impossible and a 1 value means the event is totally possible. In necessity, a 0 value means an event is not necessary and a 1 value means an event is necessary. Necessity and possibility are related by the equation:

$$NEC(U)=1-POS(U')$$

where U is the event, U' are all events that are not U, NEC is necessity, and POS is possibility.

Possibility theory shows that events that do not have large amounts of historical data in order to use probability to calculate their likelihood, are still very real possibilities that can be studied and analyzed.

Risking:

Risk or “risking” is often used to calculate the possibility that an event will impact the achievement of a desired outcome or objective. It is notable that “risk” and “risking” have more to do with the notion of the gamble or chance than probability or possibility. Risking is measured in terms of likelihood and impact. A common example is that of flipping a coin or the rolling of dice, however, since the base definition of risk is an exposure to injury or loss, the impacts measured for risk management, disaster recovery and business continuity should be calculated as threatened values (i.e.: Environmental Impacts, Human Impacts, Public Wellness Impacts, Brand or Perception Impacts, etc.). Risking applies to the disciplines of business continuity or disaster recovery.

Whereas probability uses a single number P to describe how likely an event is to occur, risk theory uses probability and loss L to mathematically describe the impacts or outcomes of a likely event. The following is an equation that measures R or risk by using probability and loss:

$$R=P \times L$$

This equation simply states that the risk is equal to the probability multiplied by the loss.

Re:Think...

and Re-imagine. Is sufficient time and energy being spent to imagine problems and disasters that have not happened? We need ways to counter risks that are well known. We also need ways to counter the problems that do not occur often but are very possible.

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