RISK , UNCERTAINTY AND PROBABILITY

PGDM

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INTRODUCTION

- Risk can be understood as the potential of loss. It is not exactly same as uncertainty, which implies the absence of certainty of the outcome in a particular situation

- in short, risk describes a situation, in which there is a chance of loss or danger. Conversely, uncertainty refers to a condition where you are not sure about the future outcomes.

DIFFERENCE BETWEEN RISK AND UNCERTINTY

BASIS FOR COMPARISON	RISK	UNCERTAINTY
Meaning	The probability of winning or losing something worthy is known as risk.	Uncertainty implies a situation where the future events are not known.
Ascertainment	It can be measured	It cannot be measured.
Outcome	Chances of outcomes are known.	The outcome is unknown.
Control	Controllable	Uncontrollable
Minimization	Yes	No
Probabilities	Assigned	Not assigned

DEFINITION OF RISK

- The risk is the outcome of an action taken or not taken, in a particular situation which may result in loss or gain.

- It is termed as a chance or loss or exposure to danger, arising out of internal or external factors, that can be minimised through preventive measures.

EXAMPLE

- It implies the uncertainty regarding the expected returns on the investments made i.e. the probability of actual returns may not be equal to the expected returns

- Project management

- Stock market

- New product or services

DEFINITION OF UNCERTAINTY

- It refers to a situation where there are multiple alternatives resulting in a specific outcome, but the probability of the outcome is not certain

- This is because of insufficient information or knowledge about the present condition

- It is hard to define or predict the future outcome or events.

KEY DIFFERENCES BETWEEN RISK AND UNCERTAINTY

1.   The risk is defined as the situation of winning or losing something worthy. Uncertainty is a condition where there is no knowledge about the future events.

2.   Risk can be measured and quantified, through theoretical models. Conversely, it is not possible to measure uncertainty in quantitative terms, as the future events are unpredictable.

3.   The potential outcomes are known in risk, whereas in the case of uncertainty, the outcomes are unknown.

4.   Risk can be controlled if proper measures are taken to control it. On the other hand, uncertainty is beyond the control of the person or enterprise, as the future is uncertain.

5.   Minimization of risk can be done, by taking necessary precautions. As opposed to the uncertainty that cannot be minimised.

6.   In risk, probabilities are assigned to a set of circumstances which is not possible in case of uncertainty.

Examples

- Uncertainty is inherent in every business which cannot be avoided, and the business person has no idea about what will happen next, i.e. the outcome is unknown

- Uncertainty is not an unknown risk

- Cricket match between two teams

- When you know the players but when you don't know the players then ……..

PROBABILITY

A **risk probability** is the chance that a risk will occur. By definition, a risk is a probability of a loss. As such, risks are modeled with probabilities and impacts. The following are common ways to model risk probability.

Qualitative Probabilities

In many cases, a risk probability is an educated guess that is modeled with a rating system such as low, medium and high probability. For example, a project team may identify risks and rate them according to the expert opinion of team members.

Quantitative Probabilities

A detailed risk analysis may allow a number to be assigned to risk probabilities. These are typically a percentage such as 60% represented as 0.6.

DIFFERENCE BETWEEN RISK AND UNCERTAINTY

Risk Probability vs Risk Impact

	Risk Probability	Risk Impact
Definition	The chance that a risk will occur.	The cost when a risk does occur.

EXAMPLE

- RISK- GIVE A GLASS OF MILK TO CARRY TO A KID

RISK 1 -A KID WALKS WITH A GLASS OF MILK BUT DOESNOT SLIP FROM HIS HAND

- RISK 2- WHAT IS THE PROBABLITY TO BREAK THE GLASS

THANK YOU