

# COMP313-31121/31221

## Exercise 9 (Project Risk Management)

1. Distinguish between Contingent plans and Fall back plans. Give an example to help elaborate your answer.

Contingency plans are predefined actions that the project team will take if an identified risk event occurs.

Fallback plans are developed for risks and put into effect if attempts to reduce the risk are not effective. In other words, it takes effect if a residual risk event occurs.

Contingent plan: Raining is the identified risk. If it occurs, I will use an umbrella.

Fall back plan: If the umbrella could help since the rain is too heavy, I will hop in a taxi.

2. In “Performing Qualitative Risk Analysis”, all identified risks are evaluated in order to be prioritized for handling. How is an identified risk evaluated? How are they handled to be visualized by the team? Use examples to help illustrate your answer.

Probability	High	risk 6	risk 9	risk 1 risk 4
	Medium	risk 3 risk 7	risk 2 risk 5 risk 11	
	Low		risk 8 risk 10	risk 12
		Low	Medium	High
		Impact		

An identified risk will be evaluated into two dimensions – Probability and Impact. All risks will be laid down the chart as above to indicate which ones should be highly prioritized and paid more attention to. Besides, we should also establish a list of “top ten risk item” to keep track of those risks.

3. A PM needs to decide whether to invest on a new plant or upgrade the existing plant for production. To build a new plant, he needs to invest 100M whereas it only needs 60M to upgrade the existing one. With the new plant, the project is expected to have a 60% chance to be rewarded 200M in return; and a 40% chance to generate 80M. For the upgraded plant, the project is expected to have a 70% chance to generate 130M; and a 30% chance to generate 60M.

Use Expected Monetary Value (EMV) method to evaluate which approach should be adopted.

Building a new plant:

$$\begin{aligned} \text{EMV} &= 60\% \times (200\text{M} - 100\text{M}) + 40\% \times (80\text{M} - 100\text{M}) \\ &= 52\text{M} \end{aligned}$$

Upgrading the plant

$$\begin{aligned} \text{EMV} &= 70\% \times (130\text{M} - 60\text{M}) + 30\% \times (60\text{M} - 60\text{M}) \\ &= 49\text{M} \end{aligned}$$

So, building a new plant is expected to generate higher value, so should be chosen.

4. Your hardware vendor left you a voicemail saying that a snowstorm in the Midwest will prevent your equipment from arriving on time.
- A. You identified a risk response strategy for this risk and have arranged for a local company to lease you the needed equipment until yours arrives. What kind of response strategy it is?

Mitigate

- B. You plan to cancel the order and make another purchase from nearby vendor that can guarantee you to deliver the needed equipment on time. What kind of response strategy it is?

Avoid

- C. Considering that you can adjust the project schedule for postponing the use of the equipment if the delay of the delivery really happens, you decide not to do any contingency planning for that. What kind of response strategy it is?

Accept