

INTEGRATED PROJECT

Project Risk Assessment

Conduct a preliminary risk analysis of your project. Use two techniques, one qualitative and one quantitative, in supporting your evaluation of project risk. In order to do this, you will need to:

- Generate a set of likely risk factors.
- Discuss them in terms of probability and consequences.
- Develop preliminary strategies for risk mitigation.

An effective risk analysis will demonstrate clear understanding of relevant project risks, their potential impact (probability and consequences), and preliminary plans for minimizing the negative effects.

SAMPLE RISK ANALYSIS—ABCups, INC.

Among the potential threats or uncertainties contained in this project, the following have been identified:

1. Plant reorganization could take longer than anticipated. Process engineering may be more complicated or unexpected difficulties could arise while the process alterations are underway.
2. A key project team member could be reassigned or no longer able to work on the project. Due to other requirements or top management reshuffling of resources, the project could lose one of its key core team members.
3. The project budget could be cut because of budget cutbacks in other parts of the company. The project budget could be trimmed in the middle of the development cycle.
4. Suppliers might be unable to fulfill contracts. After qualifying vendors and entering into contracts with them, it might be discovered that they cannot fulfill their contractual obligations, requiring the project team and organization to rebid contracts or accept lower-quality supplies.
5. New process designs could be found not to be technically feasible. The process engineers might determine midproject that the project's technical objectives cannot be achieved in the manner planned.
6. New products might not pass QA assessment testing. The project team might discover that the equipment purchased and/or the training that plant personnel received are insufficient to allow for proper quality levels of the output.
7. Vendors could discover our intentions and cut deliveries. Current vendors might determine our intent of eliminating their work and slow down or stop deliveries in anticipation of our company canceling contracts.
8. Marketing might not approve the prototype cups produced. The sales and marketing department might determine that the quality or "presence" of the products we produce are inferior and unlikely to sell in the market.
9. The new factory design might not be approved during government safety inspections. The factory might not meet OSHA requirements.

QUALITATIVE RISK ASSESSMENT

		Probability		
		Low	Med	High
Consequences	High	5		8
	Med	3, 9	2	1
	Low	4	6, 7	

QUANTITATIVE RISK ASSESSMENT

Probability of Failure

- Maturity (Moderate) = .50
- Complexity (Minor) = .30
- Dependency (Moderate) = .50

Consequences of Failure

- Cost (Significant) = .70
- Schedule (Moderate) = .50
- Reliability (Minor) = .30
- Performance (Moderate) = .50

P_m	P_c	P_d		P_f
.50	.30	.50		.43
C_c	C_s	C_r	C_p	C_f
.70	.50	.30	.50	.50
Risk Factor = $(.43) + (.50) - (.43)(.50) = .715$ (High Risk)				

Risk Mitigation Strategies

High Risk	Mitigation Strategy
1. Plant reorganization takes longer than anticipated.	1. Develop a comprehensive project tracking program to maintain schedule.
2. Marketing does not approve the prototype cups produced.	2. Maintain close ties to sales department—keep them in the loop throughout project development and quality control cycles.
Moderate Risk	
3. New process designs are found to not be technically feasible.	3. Assign sufficient time for quality assessment during prototype stage.
4. A key project team member could be reassigned or no longer able to work on the project.	4. Develop a strategy for cross-training personnel on elements of one another's job or identify suitable replacement resources within the organization.
Low Risk	
5. The project budget could be cut.	5. Maintain close contact with top management regarding project status, including earned value and other control documentation.
6. Factory does not pass OSHA inspections.	6. Schedule preliminary inspection midway through project to defuse any concerns.
7. Suppliers are unable to fulfill contracts.	7. Qualify multiple suppliers at prototyping stage.
8. New products do not pass QA assessment testing.	8. Assign team member to work with QA department on interim inspection schedule.
9. Vendors discover our intentions and cut deliveries.	9. Maintain secrecy surrounding project development.