Risk Monitoring

Purple Petal Writing Service

Introduction:

Software development is a highly complex and unpredictable activity associated with high risks. With more and more organizations investing substantial resources in software development, risk management becomes crucial. The different risks need different kinds of strategies to mitigate the risk, in order to have a successful and error-free project.

Risk

A dictionary definition of risk is "the possibility of loss or injury". Project risk involves understanding potential problems that might occur on the project and how they might impede project success. Risk management is like a form of insurance; it is an investment.

❖To increase the chances of software projects to be successful, it is necessary to identify its risks and monitoring them
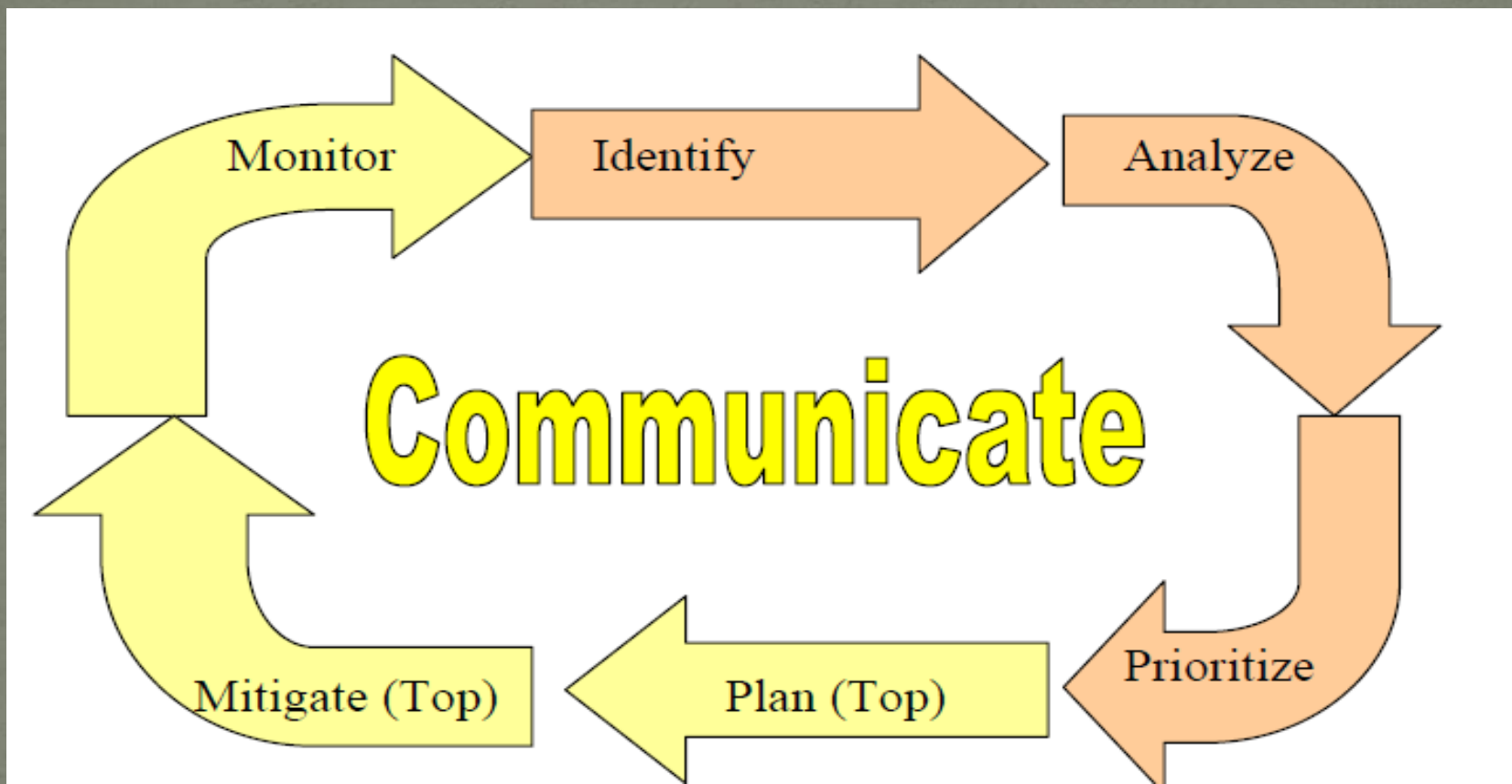
Reasons of Project Failure:

Software project management failures has shown that the following are the most common causes:
•Unrealistic or unarticulated project goals
•Inaccurate estimates of needed resources
•Badly defined system requirements
•Poor reporting of the project's status
•Unmanaged risks
•Poor communication among customers, developers, and users
•Use of immature technology
•Inability to handle the project's complexity
•Poor project management
•Stakeholder politics
•Commercial pressures

Types of Risk

1. Schedule Risk
Project schedule get slip when project tasks and schedule release risks are not addressed properly.
•Wrong time estimation.
• Resources like staff, systems, skills of individuals not tracked properly .
• Failure to identify complex functionalities and time required to develop those functionalities.
• Unexpected project scope expansions.

2. Budget Risk:
Budget related issues lead to risks to project and company.
• Wrong budget estimation.
• Cost overruns.
• Project scope expansion.

3. Programmatic Risk:
These are the external risks beyond the operational limits. These are all uncertain risks are outside the control of the program.
These external events can be:
- Running out of fund.
- Market development
- Changing customer product strategy and priority
- Government rule changes.

Process of Risk Monitoring

1.Risk Identification: Risk identification is the process of understanding what potential unsatisfactory outcomes are associated with a particular project
Several risk identification tools and techniques include:
•Brainstorming
•The Delphi technique
•Interviewing
•SWOT analysis (strengths, weaknesses, opportunities, and threats)

2.Risk Analysis: Assess the likelihood and impact of identified risks to determine their magnitude and priority. Risk quantification tools and techniques include :
•Probability/Impact matrixes
•The Top 10 Risk Item Tracking technique
•Expert judgment

3. Risk Response Control: After identifying and quantifying risks, you must decide how to respond to them. Four main response strategies for negative risks:
- Risk avoidance
- Risk acceptance
- Risk transference
- Risk mitigation

4. Risk Monitoring and Control
• Monitoring risks involves knowing the status of risk.
• Controlling risks involves carrying out the risk management plans as risks occur.
• Workarounds are unplanned responses to risk events that must be done when there are no contingency plans.

❖ The main outputs of risk monitoring and control are corrective action, project change requests, and updates to other plans

Project Risk Management

A disciplined, though simple, approach to risk management can reduce crisis management and the clean ups that result. The process is summarised under these five headings:

1. Measure
2. Minimise
3. Mention
4. Monitor
5. Modify

1. Measure

The project manager needs to measure, assess, understand:
• the risk that the project will exceed the budget he is thinking of committing to
• the risk that the project will miss any dates he has in mind
• the risk that the project will fail to meet any other commitments he is about to make.

2. Minimise
•Line up backfills for people you think might leave the team during the project.
•Increase the budget to include contingency tasks for risks that you can't eliminate at the start, i.e. tasks that describe what you'll do if the risk bites you during the project.

3. Mention
Who owns the project risk, who ultimately is taking the risk?
•Explain the process you have used to identify and analyse the risks and then to describe the major risks you initially foresaw.
•Then explain what you have already done to eliminate or reduce some or most of these major risks.

4. Monitor
Create a Risk Register which lists risks in priority order
•Risk number
•Description
•Consequence if risk happens
•Probability (high, medium or low)
•Planned actions to mitigate the risk
•Contingency plan (what you'll do if the risk happens)
•Risk owner (a member of the project team)
•Status (e.g. closed: no longer a risk)

5. Modify
At the end of each stage of your project , look at the risks you identified at the outset. Record what you did successfully to deal with each risk, what you tried that did not work, and what you would do next time. These ways of addressing risks will be useful not only to you and your next project, but also to other project managers.

Risk Mitigation

Risk mitigation planning is the process of developing options and actions to enhance opportunities and reduce threats to project objectives.

•Assume/Accept: Acknowledge the existence of a particular risk, and make a deliberate decision to accept it without engaging in special efforts to control it.

•Avoid: Adjust program requirements or constraints to eliminate or reduce the risk.

•Control: Implement actions to minimize the impact or likelihood of the risk.

•Transfer: Reassign organizational accountability, responsibility, and authority to another stakeholder willing to accept the risk.

•Watch/Monitor: Monitor the environment for changes that affect the nature and/or the impact of the risk.

Conclusion

Project risk management is the art and science of identifying, analyzing, and responding to risk throughout the life of a project and in the best interests of meeting project objectives. Main processes include:
- Risk identification
- Qualitative risk analysis
- Risk response planning
- Risk monitoring and control