Project Risk Management Process

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- Risks in projects are inevitable and need to be managed.

- A project risk is defined as an issue which may or may not happen at some time in the future.

- An issue is distinct from a risk as it will definitely happen; or has already begun to happen.

- An issue, if realized, will impact at least one of the 4 project constraints (time, resource, cost, or quality)

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There are 2 tasks of project risk management that must be accomplished in order to properly plan and manage project risks.

1. Project Risk Classification

   – Executed as part of project conception

2. Project Risk Management

   – Executed throughout life of the project

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• Project risk classification should be included as part of the project concept document

• Project portfolio planning should include the review of project risk classifications in addition to other planning criteria.

- Why:
  - Creation of balanced project portfolios
  - Better Project Management effort planning

Sample Project Risk Classification Matrix

#	Factor	Scoring				Project Score
		0	**1 (SM)**	**3 (MED)**	**7 (LG)**	
1	Category of Request		OS Patches or Web Content & Data	Infrastructure, Security or Application		
2	Number of Systems Affected		1 application and/or server affected	2-3 applications and/or servers affected	4+ applications and/or servers affected	
3	Number of Business Groups Affected	Business is not affected	1 Business Group affected	2 Business Groups affected	3+ Business Groups affected	
4	Total Team Size	< 5	5 - 9	10 - 14	> 15	
5	Number of Teams involved	1 - 2	3 - 4	5 - 6	> 7	
6	Regulatory, Compliance, or Security mandated			MIT mandated project	Externally Mandated project	
7	Business requirements well defined	Existing business processes	Modification to existing business processes	New Internal business processes	External or Unknown business requirements	
8	Number of Business Processes Affected	No Business processes are affected	1 Business Group affected	2 Business Groups affected	3+ Business Groups affected	
9	Size of Request		Will take approx 3 months to implement	Will take approx 6 months to implement	Will take 12 months or over to implement	

(Header above columns 0–7 (LG): "Project Risk Classification Scoring Worksheet" / "Scoring")

#	Factor	Scoring				Project Score
		0	1 (SM)	3 (MED)	7 (LG)	
10	**Software and Hardware required**		Will **not** require the purchase or implementation of new hardware or software		Will require the purchase and implementation of new hardware or software	
11	**Impact to specific applications/ systems**	**Other applications not listed**		**Applications, but not content change**	**MITSIS, PowerFAIDS**	
12	**Use/Modification of NPPI or Financial data**			**Secured - Use, modification, or transfer of NPPI or Financial data**	**Un-secured -Use, modification, or transfer of protected Student data**	
13	**Use of New Technology to industry**		**Technology in market for less than 2 years**	**Technology in market for less than 9 months - more than 2 client base**	**Technology in market for less than 3 months - first client on technology, or beta customer**	
14	**Use of New Technology to MIT**		**MIT has at least .5 FTYE of staff experienced w/ new technology**	**MIT has at least one experienced staffperson onsite w/ new technology per team**	**MIT has no experienced staff onsite w/ new technology**	
15	**Use of Production data in non-production environment**				**Use of Production data in non-production environment**	
16	**Use of OffShore staffing**			**Limited Offshore for QA**	**Limited Offshore for QA and Limited Offshore for Dev**	
	Risk Scoring	[0 - 37] = Low Risk Project [38 - 75] = Moderate Risk Project [76- 112] = High Risk Project			**TOTAL**	

•Risks that are highlighted in RED are agreed project risks that may adversely affect the Institute. These risks will be identified as part of the monthly project status reporting. See sample project status slide.

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Planning Phase

1. Inventory the situation

   A. Project Team develops Risk Inventory List (see template)

      ➤ Include:

         o Internal Factors – i.e., resource changes, assumptions failures, team member availability, inexperienced team

         o External Factors – i.e., change in company direction, change in technology

         o New to project or organization – i.e., new development methology, new team members

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Risk Ref #	Risk Description	Impacts Schedule	Impacts Scope	Impacts Resource	Impacts Quality	Probability (1-3)
1	Use of Offshore development for the 1st time	H	L	H	M	2
2	Aggressive timelines	H	L	L	H	3

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Planning Phase (con't)

2. Evaluate

    A. Score the risks

        ➤ Probability rating – 1 to 3:

            o   0 - 30% = 1

            o   31% - 60% = 2

            o   61% - 100% = 3

        ➤ Impact Rating: - 1 to 4:

            o   Time

            o   Cost

            o   Scope

            o   Quality

    B. Total Risk Score: Probability times Impact Rating

3. Prioritize

    A. Based on Score

    B. Based on organizational experiences

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Planning Phase (con't)

4.   Control and mitigate

A.   Enhance Risk Register (see template)

➢   Type of risk
- o   Controllable:
  - ❖   Definition: Risk can be eliminated by eliminating the cause.
  - ❖   Action: Document action items to eliminate cause and risk

- o   Mitigatable:
  - ❖   Definition: Reduce the probability or the consequences of an adverse risk
  - ❖   Action: Include in project issues log, mitigation strategy

- o   Acceptable:
  - ❖   Definition: Acceptable risk by project team or project stakeholder.
  - ❖   Action: Document acceptance

B.   Identify Trigger point to begin mitigation strategy

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#	Prio rity	Category	Risk Description & Consequences	Trigger Point(s)	Action	Risk Owner & Risk Actionee	Probability Rating (1 -3)	Impact Rating (1-4)	Total Rating	Duration of Risk	Type of Risk
1	1	Dev	Risk: Using Offshore development for 1st time Consequences: Poor Quality, difficulty in integration, communication issues	Integration issues or unplanned redesign efforts	Evaluate the need for additional support structure to support offshore efforts	Owner: SVP of Development

Actionee: Project Manager | 2 | 4 | 8 | 12 mos | Mitigatable |
| 2 | 2 | Schedule | Risk: Team has no experience with technology

Consequences: Delayed timelines, quality may be impacted | Lost time due to need for redesign. | Train staff ASAP, provide consultant support | Owner: SVP of IT

Actionee: Project Manager | 3 | 4 | 12 | Life of project | Mitigatable |

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Design Phase on..

1. Monitoring

    A. Review issues log weekly with project team including mitigation strategies.

    B. At the end of every project phase, review of risks and their mitigation strategy.

        ➢ Review of any new or expired risks

        ➢ Review of risks trigger point – adjust planning if necessary

        ➢ Review of all mitigation strategy for adjustments