

# Optimizing Project Risk Control Practical Tips from a Practitioner

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## Gabriel Lau

- Over 20 years of work experience having held various management positions in multinational financial institutions
- PMI Risk Management Professional (PMI-RMP) credential holder
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## Agenda

- Definitions & risk management processes
- Exercise
- Risk management maturity model
- Practical tips
- PMI-RMP credential
- Q&A



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## What is Risk?

- There is no single definition of risk
- Traditionally, risk has been defined in terms of uncertainty
- "Principles of Risk Management and Insurance", George E. Rejda
  - Risk is defined as uncertainty concerning the occurrence of a loss
- Webster's
  - Defines risk as "exposure to the chance of injury or loss; a hazard or dangerous chance"
- PMBOK Guide – Fourth Edition
  - Risk can be either threats or opportunities



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## Risk Management Standards

- There are a variety of standards associated with risk management
  - PMI's Project Management Body of Knowledge (PMBOK)
  - Australia-New Zealand ANZ-4360
  - ISO 31000 Risk Management -- Guidelines on Principles and Implementation of Risk Management
  - NIST 800-30 Risk Management Guide for Information Technology Systems
  - Factor Analysis of Information Risk (FAIR)
  - IEEE 1540: Standard for Lifecycle Processes-Risk Management
  - and many others



## Project Risk Management

- PMBOK Guide – Fourth Edition
  - Project risk is an uncertain event or condition that, if it occurs, has a positive or negative effect on a project's objectives (which include scope, schedule, cost, and quality)
  - A good risk management process is proactive and fundamentally different than issue management or problem solving, which is reactive
  - The objectives of Project Risk Management are to increase the probability and impact of positive events and decrease the probability and impact of negative events in the project.



## Project Risk Management Processes

- Plan Risk Management
- Identify Risks
- Perform Qualitative Risk Analysis
- Perform Quantitative Risk Analysis
- Plan Risk Responses
- Monitor and Control Risks



## Exercise

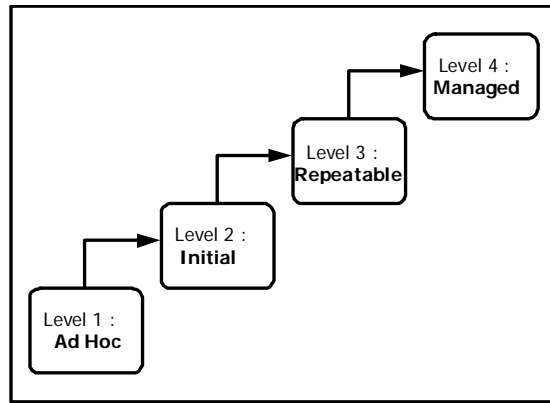
Next week is the Chinese New Year. You will travel to Beijing with your spouse for sightseeing for 4 days (during the 1st day to the 4th day of the Chinese New Year). You and your spouse have never been to Beijing before. Both of you seldom travel to China. In view of the fact that Beijing is a well-developed city, you have decided to go as independent travelers (自由行).

Please carry out the following processes for your trip:

- Identify Risks
- Plan Risk Response



## Risk Management Maturity Model



Source: Risk Management Maturity Level Development, Risk Management Research and Development Program Collaboration (2002)



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## Level 1 – Ad hoc

- The organization is unaware of the need for risk management
- Has no structured approach to dealing with uncertainty
- No attempt is made to identify risks to the project or to develop mitigation or contingency plans
- With little or no attempt to learn from past projects or to prepare for future uncertainties
- The normal method for dealing with problems is to react after a problem occurs with no proactive thought
- Project success depends on having an exceptional manager and a seasoned and effective team

Source: Risk Management Maturity Level Development, Risk Management Research and Development Program Collaboration (2002)



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## Level 2 – Initial

- Aware of the potential benefits of managing their project risks
- The organization is experimenting with the application of risk management, through a small number of nominated individuals within specific projects
- has no formal or structured Risk Management process in place
- there is no effectively implemented organization-wide Risk Management process implemented
- there is no method implemented for providing these Lessons Learned to all of the organization's projects

Source: Risk Management Maturity Level Development, Risk Management Research and Development Program Collaboration (2002)



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## Level 3 – Repeatable

- The organization implements risk management in most projects
- Risk policies and procedures are formalized and widespread at all levels of the organization
- Risk policies and procedures may not be consistently applied in all projects
- Risk Management capability is enhanced by establishing basic Risk Management discipline on a project-by-project basis
- Make realistic project commitments based on the results observed on previous projects and on the risks identified for the current project
- All projects have an assigned Risk Manager

Source: Risk Management Maturity Level Development, Risk Management Research and Development Program Collaboration (2002)



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## Level 4 – Managed

- the organization has established a risk-aware culture that requires a proactive approach to the management of risks in all aspects of the organization
- A standard Risk Management process is documented and used across the organization. The Risk Management process is standard and consistent.
- A group of personnel within the organization are assigned responsibility for Risk Management
- Risk Management teams continuously analyze the results from past projects to determine how accurate risk identification was versus actual impacts and causes. They disseminate lessons learned throughout the organization.

Source: Risk Management Maturity Level Development, Risk Management Research and Development Program Collaboration (2002)



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## Risk Management Maturity Model

	Level 1 – Ad Hoc	Level 2 – Initial	Level 3 – Repeatable	Level 4 - Managed
<b>Definition</b>	Unaware of the need for management of uncertainties (risks). No structured approach to dealing with uncertainty. Repetitive and reactive management processes. Little or no attempt to learn from past projects or prepare for future projects.	Experimenting with risk management through a small number of individuals. No structured approach in place. Aware of potential benefits of managing risk, but ineffective implementation.	Management of uncertainty built into all organizational processes. Risk management implemented on most or all projects. Formalized generic risk process. Benefits understood at all organizational levels, although not always consistently achieved.	Risk-aware culture with proactive approach to risk management in all aspects of the organization. Active use of risk information to improve organizational processes and gain competitive advantage.
<b>Culture</b>	No risk awareness. No upper management involvement. Resistant/reliance to change. Tendency to continue with existing processes even in the face of project failures. Shoot the messenger.	Risk process may be viewed as additional overhead with variable benefits. Upper management encourages, but does not require, use of Risk Management. Risk management used only on selected projects.	Accepted policy for risk management. Benefits recognized and expected. Upper Management requires risk reporting. Dedicated resources for risk management. Bad news* risk information is accepted.	Top-down commitment to risk management, with leadership by example. Upper management uses risk information in decision-making. Proactive risk management encouraged and rewarded. Organizational philosophy accepts idea that people make mistakes.

Source: Risk Management Maturity Level Development, Risk Management Research and Development Program Collaboration (2002)



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## Risk Management Maturity Model

	Level 1 – Ad Hoc	Level 2 – Initial	Level 3 – Repeatable	Level 4 - Managed
<b>Process</b>	No formal process. No Risk Management Plan or documented process exists. None or sporadic attempts to apply Risk Management principles. Attempts to apply Risk Management process only when required by customer.	No generic formal processes, although some specific formal methods may be in use. Process effectiveness depends heavily on the skills of the project risk team and the availability of external support. All risk personnel located under project.	Generic processes applied to most projects. Formal processes incorporated into quality system. Regular evaluation and refining of process. Active allocation and management of risk budgets at all levels. Limited need for external support. Risk metrics collected. Key suppliers and customers participate in the Risk Management process. Informal communication channel to organization management.	Risk-based organizational processes. Risk Management culture permeating the entire organization. Regular evaluation and refining of process. Routine risk metrics used with consistent feedback for improvement. Key suppliers and customers participate in the Risk Management process. Direct formal communication channel to organization management.
<b>Experience</b>	No understanding of risk principles or language. No understanding or experience in accomplishing risk procedures.	Limited to individuals who may have had little or no formal training.	In-house core of expertise, formally trained in basic risk management skills. Development and use of specific processes and tools.	All staff risk aware and capable of using basic risk skills. Learning from experience as part of the process. Regular training for personnel to enhance skills.

Source: Risk Management Maturity Level Development, Risk Management Research and Development Program Collaboration (2002)



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## Risk Management Maturity Model

	Level 1 – Ad Hoc	Level 2 – Initial	Level 3 – Repeatable	Level 4 - Managed
<b>Application</b>	No structured application. No dedicated resources. No risk management tools in use. No risk analysis performed.	Inconsistent application of resources. Qualitative risk analysis methodology used exclusively	Routine and consistent application to all projects. Dedicated project resources. Integrated set of tools and methods. Both qualitative and quantitative risk analysis methodologies used.	Risk ideas applied to all activities. Risk-based reporting and decision-making. State-of-the-art tools and methods. Both qualitative and quantitative risk analysis methodologies used with great stress on having valid and reliable historical data sources. Dedicated organizational resources.

\* The source is available from <http://www.pmi-switzerland.ch/fall05/riskmm.pdf>

Source: Risk Management Maturity Level Development, Risk Management Research and Development Program Collaboration (2002)



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## Practical Tips

- #1: Communicate is the No. 1 Success Factor
  - project managers unaware of the risks while stakeholders actually do see those risks
  - team meetings: make project risks part of the default agenda
  - make sure you don't surprise the boss or the customer
  - Identifying risks without communication them is a waste of time
- #2: Risk management needs to be proportionate
  - Each of the project risk management processes shall be scaled to be appropriate to the project under management



## Practical Tips (Cont'd)

- #3: Make risk management part of your project
  - Professional companies make risk management part of their day to day operations and include it in project meetings and the training of staff
- #4: Develop risk management strategy
  - If your company does not have a formal risk management strategy, you must develop the risk management strategy for your project
  - The project team and key stakeholders shall be involved in determining the approach for handling risks



## Practical Tips (Cont'd)

- #5: Hope is not a strategy
  - Hoping that something positive will result is not a good strategy
- #6: Consider both threats and opportunities
  - Project risks have a negative connotation: they are threats
  - Don't forget the opportunities which are equally important



## Practical Tips (Cont'd)

- #7: Identify risks early in your project
  - Are you able to identify all project risks before they occur? Probably not (only large majority)
  - Some project management processes are obvious sources of risks:
    - Develop PM Plan;
    - Collect Requirements; Define Scope; Create the WBS
    - Define Activities; Sequence Activities; Estimate Activity Resources; Develop Schedule
    - Estimate Costs; Determine Budget
    - Plan Quality
    - Develop HR Plan
    - Plan Communications
    - Plan Procurement



## Practical Tips (Cont'd)

- #8: Assign a risk owner for each risk that you have found
  - At first people usually feel uncomfortable that they are actually responsible for certain risks
  - With effective risk management, there will be fewer fire-fighting and stress levels will drop. Meeting deadlines on target will produce a solid team spirit, which in turn will produce a virtuous cycle of change. People will become more willing to be risk owners.



## Practical Tips (Cont'd)

- #9: Analyze and prioritize risks
  - You'd better spend your time on the risks that can cause the biggest losses and gains.
  - showstoppers are your no. 1 priority
  - focus on the big risks
- #10: Track risks
  - Which risks are more likely to happen?
  - Has the relative importance of risks changed?
  - Measure the effects of your risk management efforts



## Project Risk Professionals

- In a 2004 market research survey of PMI members, both project scheduling and project risk management ranked in the top three list of demands for a specialty credential
- 2008 research commissioned by PMI and conducted by Economist Intelligence Unit (EIU) states:
  - Project risk identification and mitigation identified as key to company performance over the next five years



## Project Risk Manager Positions

### Risk Manager / Project Risk Manager - London

Risk Manager / Project Risk Manager - London. My client is a major Blue Chip and are looking for a project Risk Manager to oversee the processes, policies and procedures to identify and manage risks and issues in order to assist the successful completion of projects within a complex IT environment. In addition, driving the PIR (Project Implementation Review) process and coordinating and managing the lessons learnt to produce a Project Risk Database for future reference. You will also define and shape group processes and systems so that information is gathered reliably and efficiently and applied to best effect. You will have a track record of Risk Management ideally within a Blue Chip environment. Risk Manager / Project Risk Manager - London

#### Vacancy Summary

Job Type	Permanent
Location	London
Start Date	ASAP
Duration	
Salary	£40k - £55k pa + Car Allo
Ref No:	128677-JSRISKKP_437622
Date Advertised	01 Mar 2010



## Project Risk Manager Positions

### PROJECT RISK MANAGER (M/F)

FOR RWE INNOGY GMBH, LOCATION SWINDON

**Your tasks:** RWE Innogy pools the renewable energy expertise and generating plant of the RWE Group. The company plans, builds, and operates renewable power generation facilities and aims to vigorously grow its renewable energy capacity in the UK and Continental Europe. As the Project Risk Manager, you will be responsible for the risk management of a major multi-contract offshore wind project from the procurement phase through construction to commercial operation. You will participate in the development of RWE Innogy risk management processes and be in charge of implementing those processes within the project. You will work closely together with package managers and interface with centrally co-ordinated risk management functions.

Your key activities will comprise development and execution of the Project Risk Management Plan, managing and facilitating risk workshops on package and project level. You will also take on management and administration of the project risk register and ensure that all risk response plans are executed accurately. Managing and facilitating risk and scenario modelling to determine project confidence data as required will be another central task. Further responsibilities will include collating, integrating, evaluating, and reporting project business risks (health, safety, environmental, technical, commercial, political, financial, etc.). You will collaborate with centrally co-ordinated risk management functions to ensure that the project complies with the risk management directives and that lessons learnt and best practices are shared across projects. Moreover, you will ensure that the project's risk management plan is in accordance with relevant directives and that all project packages have effective risk registers, with all risks regularly reviewed and quantified. You will also create and implement risk response plans together with package managers. Ensuring that all appropriate risks are reported within RWE Innogy will round off your duties.



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## PMI Risk Management Professional (PMI-RMP)

- The PMI-RMP credential recognizes individuals who provide expertise in the specialized area of assessing and identifying project risks along with preparing plans to mitigate threats and capitalize on opportunities.
- This global credential acknowledges individuals who strengthen and support project management by offering knowledge specific to project risk management.



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## Benefits To The Organization

- PMI-RMP are Professionals who contribute to organizational growth and maturity through project management practices
- Impacts bottom-line results
  - Projects are completed on time, on budget and within scope
- Talent Management
  - Provides career development opportunities for employees
- Attracts better qualified employees



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## Benefits To The Credential-Holder

- Validates a formal role and level of expertise
- Increases the practitioner's marketability
- Establishes a career development opportunity
- Provides role differentiation
- Establishes critical scheduling skill requirements



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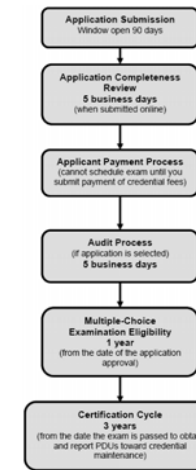
## PMI-RMP Eligibility Requirements

Educational Background	Project Risk Management Experience	Project Risk Management Education
High School diploma, associate's degree or global equivalent	At least 4,500 hours spent in the specialized area of professional project risk management within the last five consecutive years	40 contact hours of formal education in the specialized area of project risk management
<b>OR</b>		
Bachelor's degree or global equivalent	At least 3,000 hours spent in the specialized area of professional project risk management within the last five consecutive years	30 contact hours of formal education in the specialized area of project risk management

- All project risk management experience must have been accrued within the last five consecutive years prior to your application submission.
- There is no timeframe associated with the education requirement.



## Timeline of PMI-RMP Credential Process



## PMI-RMP Examination Format

- 170 multiple-choice questions (20 are considered pretest questions)
- Allotted examination time: 3.5 hours
- 4 domain areas:
  - Risk Communication (27%)
  - Risk Analysis (30%)
  - Risk Response Planning (26%)
  - Risk Governance (17%)
- Examination Fee: US\$520



## PMI-RMP Credential Maintenance

- The PMI-RMP certification cycle: 3 years
- Attain no less than 30 professional development units (PDUs)
- You can apply the PDUs you earn for the PMI-RMP credential to the maintenance of your PMP credential
- Credential Renewal Fee: US\$60

