



Version 6.1 Updated for the 2021  
Project Management Professional (PMP)<sup>®</sup> Exam



## Crosswind Success Series: PMP<sup>®</sup> Exam Bootcamp Manual

[www.crosswindpm.com](http://www.crosswindpm.com)

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Version 6.1 aligned with the Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK<sup>®</sup> Guide)* - Sixth Edition, Project Management Institute Inc., 2017

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Risk owners and their responsibility

Characteristics of a risk response plan including recognition of the strategies (avoid, transfer, mitigate, escalate, exploit, share, enhance, acceptance, and contingent response strategy)

What a work-around is in relation to Plan Risk Responses

Although helpful, this list is not all-inclusive in regard to information needed for the exam. It is only suggested material that, if understood and memorized, may increase your exam score.

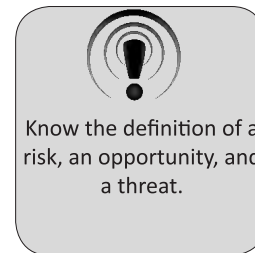
### 14.1. What is Risk?

**A risk is an event that can impact the project positively or negatively and has some degree of uncertainty.** The risk event may or may not occur.

The objective of assessing risk is to determine its impact. Once determined, the team works to offset any negative impact and enhance any positive impact.

An example of a negative risk (threat) is a reliance on a piece of software that does not work as planned, forcing the team to come up with an alternative.

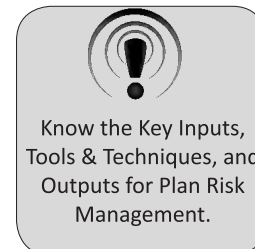
An example of a positive risk (opportunity) is sales of a new product exceeding expectations.

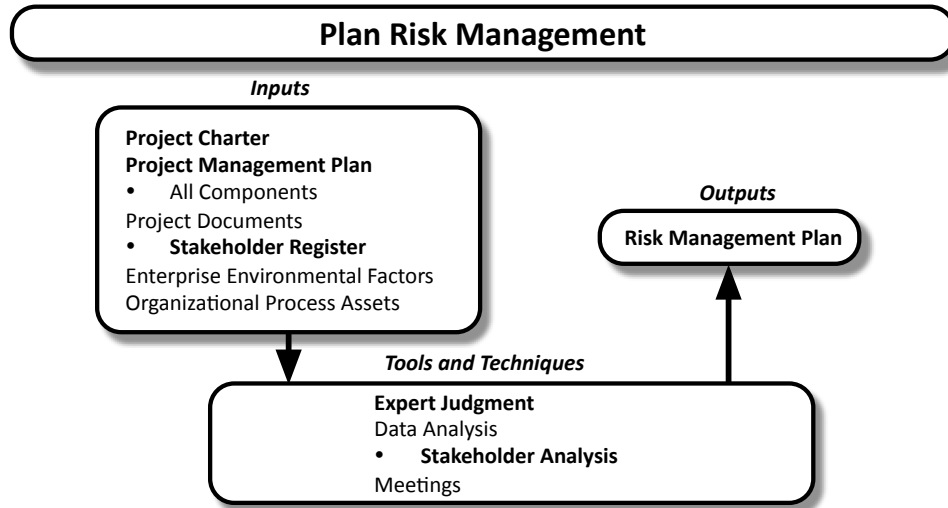


### 14.2. Plan Risk Management (Planning Process Group)

During the Plan Risk Management process, the risk management plan is created. The project manager and the team proactively plan the manner in which risks will be identified, ranked, and addressed.

The project team uses the organization’s risk management policies and procedures as a guide when creating the risk management plan.





**Figure 14-2: Plan Risk Management Data Flow Diagram**

The source for the above figure is the Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK® Guide)* – Sixth Edition, Project Management Institute Inc., 2017, Figure 11-2, Page 401

Plan Risk Management (Planning)		
Key Inputs	Project Charter	The project charter is the document that provides authorization for the existence of the project and gives the project manager the power to use organizational resources to execute the project. The project charter typically lists the key deliverables, the milestones, and the preliminary roles and responsibilities of the project. It also contains high-level requirements and risks, as well as a high-level description of the project and its assumptions and constraints.
	Project Management Plan	To ensure consistency, the approved components of the project management plan should be considered when creating the risk management plan. The procedures outlined in the approved components may influence risk management planning.
	Stakeholder Register	The stakeholder register delineates stakeholder information that includes, but is not limited to, identification data (name, position, location, contact information, and project role), assessment information (important requirements, expectations, attitudes toward risk, and level of influence), and classification (internal or external, influence, or other classification model). It is utilized to identify roles and responsibilities for managing project risks and to establish risk thresholds.

Plan Risk Management (Continued)		
Key Tools & Techniques	Expert Judgment	Expert judgment is judgment based on expertise acquired in a specific area. It is often more significant and accurate than the best modeling tools available and can be provided by stakeholders, company personnel external to the project, professional organizations or groups, and consultants. It is important to consider expertise related to customizing risk management to a specific project. It is also important to consider familiarity with types of risk for similar projects and with organizational and, if applicable, enterprise risk management.
	Stakeholder Analysis	Stakeholder analysis is performed to assess the positions of stakeholders toward risk since those positions influence the tenor of the risk management plan.
Key Outputs	Risk Management Plan	The risk management plan is a component of the project management plan that details the manner in which risk management activities are configured and implemented. Typically it addresses risk strategy, risk methodology, roles and responsibilities, financing (the budget for risk-related activities, contingent reserves, and management reserves), timing of risk processes, risk classification for grouping individual risks (typically, a risk breakdown structure provides the framework for classification), the probability and impact of individual risks (often supported by a probability and impact matrix), reporting formats, and tracking. It may also include a determination of the manner in which risk thresholds are established and risks are tracked, reported, scored, and interpreted.

#### Situational Question and Real World Application

If Plan Risk Management is ignored, it is likely that the project risk environment will become reactive. A reactive project risk environment typically has no predetermined responses for risks that do occur and/or no process for addressing those risks.

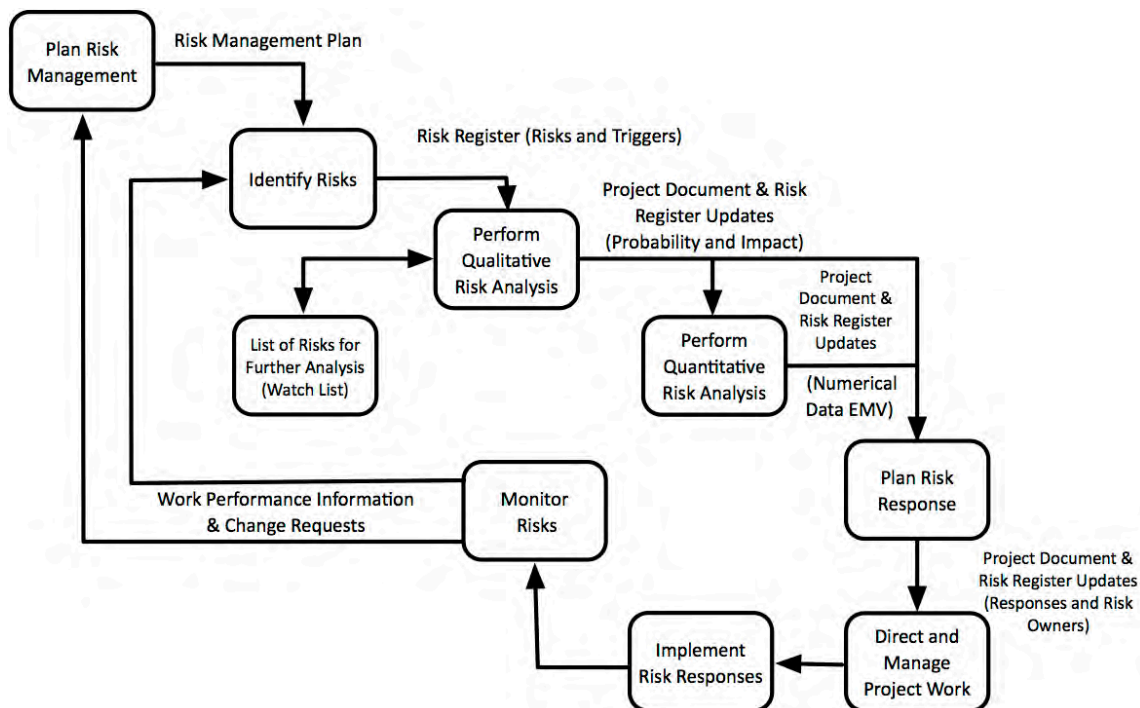
#### 14.2.1. Risk Management Plan

An effective risk management plan addresses the methodologies that will be used to manage risk, as well as the risk-related roles and responsibilities, budget estimates for the activities of risk-related resources, guidelines for using contingency and management reserves, and the impact of risk activities on the project schedule.

The plan is used by the project manager and team to:

- Create the risk register
- Identify risks (positive and negative) and triggers
- Define the probability and impact matrix, as well as its thresholds
- Determine when and how to perform quantitative risk analysis, expected monetary value (EMV), and decision tree analysis
- Establish risk responses
- Establish risk owners and detail the responsibilities of each risk owner
- Implement risk responses
- Monitor and respond to risks

Reference Figure 14-3: Risk Processes Interaction for an overview of how the processes of risk work together as a result of the risk management plan.



**Figure 14-3: Risk Processes Interaction**

The source for the above figure is the Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK® Guide) – Sixth Edition*, Project Management Institute Inc., 2017, Figure 11-1, Page 396

The risk breakdown structure and risk probabilities and impact rating matrix are two examples of documents that can be created within the risk management plan. The risk breakdown structure is typically used during the Identify Risks process and the probabilities and impact matrix is used during the Perform Qualitative Risk Analysis process.



### 14.2.2. Risk Breakdown Structure (RBS)

The risk breakdown structure (RBS) can be utilized to **break down project risks**. A brainstorming environment can be created if the **risks are categorized**, so the team can identify and categorize additional risks. This approach is similar to decomposition of the work on a project to create a WBS. Typical risk categories can include **internal, external, technological, and organizational**.

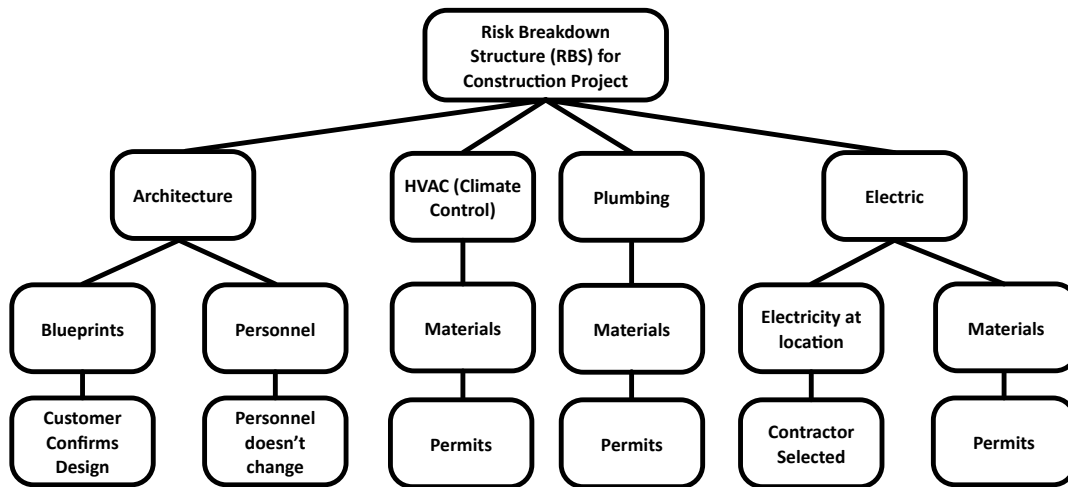
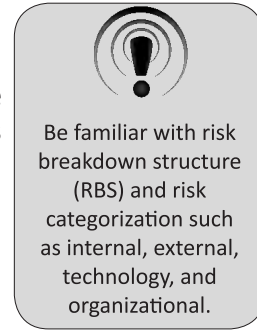


Figure 14-4: Risk Breakdown Structure Sample

The source for the above figure is the Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK® Guide)* – Sixth Edition, Project Management Institute Inc., 2017, Figure 11-4, Page 406

### 14.2.3. Probability and Impact Matrix

The probability and impact matrix is part of the risk management plan and can be used as the basis for the evaluation of risks in terms of their probability and impact. It is typically used during the Perform Qualitative Risk Analysis process. Its criteria are established by those associated with the project, including the sponsors, the project manager, and/or team members.

The following table displays the probability (a value between 0 and 1.0), followed by the probability range (low, medium, and high), followed by the impact to scope, schedule, cost, and quality for the occurrence of a specific event.

The threshold information in the table that follows is an example only. Specific thresholds are determined by the appropriate project party.

	Low	Medium	High
<b>Probability</b>	0 to 0.33	0.34 to 0.66	0.67 to 1.00
<b>Project Objective (Impact)</b>	Low	Medium	High
<b>Scope</b>	Minimal changes	Significant changes for functionality	Potentially flawed product
<b>Schedule</b>	5% or less delay	6% to 15% delay	16% or greater delay
<b>Cost</b>	5% or less increase	6% to 15% increase	16% or greater increase
<b>Quality</b>	Quality slippage minimal	Slippage requires sponsor sign-off	Product is basically useless

#### 14.2.4. Uncertainty

Uncertainty is a component of risk that denotes the amount of information known (or unknown) about the outcome. The range regarding the possible outcome starts with no knowledge and ends with a high degree of knowledge.



#### 14.2.5. Types of Risk

There are two types of risk – pure risk and business risk.

**Pure risk** Pure risk is a risk for which **insurance can be purchased**, thereby transferring the risk for financial benefit to the party accepting the risk.

**Business risk** Business risk is **typically uninsurable**. It is an event that can occur during the process of doing business. An example of business risk is **the forecast of sales over the next six months**.



#### 14.2.6. Risk and Contracting

There is a belief that if a company out-sources a piece of work, the provider assumes the risk and the purchaser has no risk exposure. This is NOT THE CASE. When outsourcing, a **buyer can minimize risk exposure (some risk remains) and there is a new risk exposure**. An example of a new risk is the failure of the seller to provide the services as promised. Reference the Procurement chapter for more information about risk as it relates to the buyer, seller, and contracting.



### 14.2.7. Risk Attitude and Perspective

The risk attitude of a person or organization can influence the project environment.

There are four types of risk attitude: Risk-Averse, Risk Seeker, Risk Tolerant, and Risk-Neutral.

The risk attitude of the customer/sponsor, project manager, and the organization greatly impacts the project environment.



Know the characteristics of a risk seeker, a risk-neutral person, a risk tolerant person, and a risk-averse person and how they relate to risk attitude.

Type	Description
<b>Risk-averse</b>	Those that are risk-averse practice <b>risk avoidance</b> . They invariably select the low risk option or the sure thing.
<b>Risk tolerant</b>	Those that are risk tolerant are comfortable ignoring a risk until it becomes an issue.
<b>Risk seeker</b>	Those that are risk seekers <b>do not fear risk</b> and may embrace it. They are typically early adopters of new products and often take an all or nothing approach to an initiative.
<b>Risk-neutral</b>	Those that are risk-neutral have a measured attitude toward risk; however, depending on specific circumstance, that attitude can become risk-averse or risk seeking.

The source for the above text is the Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK® Guide) – Sixth Edition*, Project Management Institute Inc., 2017, Pages 401-408

### 14.3. Identify Risks (Planning Process Group)

During the Identify Risks process, the project manager, team, key stakeholders, and/or subject matter experts identify possible project risks. A predefined list from previous projects may be utilized as a starting point for the identification.

When the Identify Risks process is complete, the identified risks are subject to the Perform Qualitative Risk Analysis process.



Know the Key Inputs, Tools & Techniques, and Outputs for Identify Risks.