

Risk Management Plan

**Version1.0**

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**01/11/2019**

**VERSION HISTORY**

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| --- | --- | --- | --- | --- | --- |
| **Version #** | **Implemented**  **By** | **Revision**  **Date** | **Approved**  **By** | **Approval**  **Date** | **Reason** |
| 1.0 | Anh Minh | 01/10/2019 |  |  | Create Document version 1.0 |
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Nội dung

[**1.** **Introduction** 3](#_Toc23538632)

[**1.1.** **Purpose and Objectives** 3](#_Toc23538633)

[**2.** **Risk-Related definitions** 3](#_Toc23538634)

[**2.1.** **Risk** 3](#_Toc23538635)

[**2.2.** **Probability of Occurrence** 3](#_Toc23538636)

[**2.3.** **Risk Impact** 4](#_Toc23538637)

[**2.4.** **Risk Score** 4](#_Toc23538638)

[**3.** **Organization** 5](#_Toc23538639)

[**3.1.** **Roles & Responsibilities** 5](#_Toc23538640)

[**4.** **Risk management Structure and Procedures** 6](#_Toc23538641)

[**4.1.** **Qualitative Analysis** 6](#_Toc23538642)

[**5.** **Risk register** 7](#_Toc23538643)

1. **Introduction**

## **Purpose and Objectives**

Risk Management is the systematic process of identifying, analyzing, and responding to project risks. It includes maximizing the probability and consequences of positive events and minimizing the probability and consequences of adverse events to project objectives. A risk management plan defines how a project team will handle risks to achieve that goal.

# **Risk-Related definitions**

There are a number of terms used in risk management that need we need to define to ensure clear communications.

## **Risk**

An uncertain event or condition that, if it occurs, has a positive or negative effect on a project’s objectives. Risk is often a measure of the inability to achieve overall project objectives within defined project requirements and constraints and has three components: (1) the probability of occurrence, (2) the impact of the risk on the program, and (3) the time horizon during which the consequences will occur if the risk is not mitigated.

## **Probability of Occurrence**

The following table defines the probability of occurrence.

Table 1 – Risk Probability of Occurrence

|  |  |  |  |
| --- | --- | --- | --- |
| **Probability range** | **Natural language expression** | **Probability value used for calculations** | **Numeric score** |
| 91% through 99% | “Very likely” to occur | 95% | 5 |
| 61% through 90% | “Probably” will occur | 76% | 4 |
| 41% through 60% | “May occur” about half of the time | 51% | 3 |
| 11% through 40% | “Unlikely” to occur | 26% | 2 |
| 1% through 10% | “Very unlikely” to occur | 5% | 1 |

## **Risk Impact**

The following table defines the risk impact categories and terms. For positive risks, consider the opposite of the impact description. The examples would remain the same except having a positive impact to the project.

Table 2 – Risk Impact

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Impact Description** | **Example \*** | **Natural language expression** | **Impact value used for calculations** | **Numeric score** |
| An event that, if it occurred, would cause project failure (inability to achieve minimum acceptable requirements) | schedule adjustment  >2 mo | Critical | Cost of variance | 10 |
| An event that, if it occurred, would cause major cost/ schedule increases. Secondary requirements may not be achieved. | schedule adjustment  >1 mo | Serious | Cost of variance | 8 |
| An event that, if it occurred, would cause moderate cost/ schedule increases, but important requirements would still be met. | schedule adjustment  > 2wks | Moderate | Cost of variance | 5 |
| An event that, if it occurred, would cause only a small cost/schedule increase. Requirements would still be achieved. | schedule adjustment  > 1wk | Minor | Cost of variance | 3 |
| An event that, if it occurred, would have no effect on the project. | schedule adjustment  < 2d | Negligible | Cost of variance | 1 |

## **Risk Score**

The risk score is a value calculated that is the product of probability of occurrence and impact. You use the score to compare risks as part of the risk prioritization process. Table 3 is the matrix used to develop the risk score. The values range from 1 (very low exposure) to 50 (very high exposure). Although there are no specific break points in the risk exposure ranking, those risks with an exposure value of less than 20 are generally considered low risks, those risks with an exposure value between 20 and 39 are generally considered moderate risks, and those risks with an exposure value between 40 and 50 are generally considered high risks. The definitions of Low, Moderate, and High are as follows:

* + - Low Risk: Has little or no potential for increase in cost, disruption of schedule, or degradation of performance. Actions within the scope of the planned project and normal management attention should result in controlling acceptable risk. No response plans will be made for these risks. The project will monitor for them and manage them as they come up.
    - Moderate Risk: May cause some increase in cost, disruption of schedule, or degradation of performance. Special action and management attention may be required to control acceptable risk. The project will do some response planning for these risks.
    - High Risk: Likely to cause significant increase in cost, disruption of schedule, or degradation of performance. Significant additional action and high priority management attention will be required to control acceptable risk. The project will do in-depth response plans for these risks.

Positive risks can use the same table and descriptions except instead of trying to avoid the risk, we will endeavor to make the risk occur and gain the positive impact.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Impact** | | | | |
| **Probability** | **Negligible (1)** | **Minor (3)** | **Moderate (5)** | **Serious (8)** | **Critical (10)** |
| **Very likely to occur**  **(5)** | 5 | 15 | 25 | 40 | 50 |
| **Probably will occur**  **(4)** | 4 | 12 | 20 | 32 | 40 |
| **About 50% chance**  **of occuring (3)** | 3 | 9 | 15 | 24 | 30 |
| **Unlikely (2)** | 2 | 6 | 10 | 16 | 20 |
| **Very unlikely to**  **occur (1)** | 1 | 3 | 5 | 8 | 10 |

Table 3 – Risk Score

|  |  |
| --- | --- |
|  | Low Risk |
|  | Low Risk |
|  | Moderate Risk |
|  | Moderate Risk |
|  | High Risk |

Table 3.1 – NoteRisk Score

# **Organization**

This section defines the roles and responsibilities for risk management.

## **Roles & Responsibilities**

|  |  |
| --- | --- |
| **Roles** | **Responsibilities** |
| Project Manager: The overall coordinator of the Risk Management Program. | * Maintaining this Risk Management Plan * Maintaining the Risk Management Data Base and distributing updates * Briefing the team on the status of risks * Tracking efforts to reduce moderate and high risk to acceptable levels * Providing risk management training * Facilitating risk assessments and * Preparing risk briefings, reports, and documents required for Project Reviews |
| Project Team: Responsible for identifying, monitoring and managing risks | * Coordinate with SMEs to review and recommend to the Project Manager changes on the overall risk management approach based on lessons learned. * Review and recommend any changes to the risk assessments made and the risk mitigation plans proposed. * Report new risks to the Project Manager via e-mail * Ensure that risk is a required topic at each Project Meeting * Accomplish assigned mitigation tasks and report status/completion of mitigation actions to the Project Manager for entry into the database. |

Table 4 – Role & responsibilities

# **Risk management Structure and Procedures**

This section outlines the process for managing risk

## **Qualitative Analysis**

|  |  |  |
| --- | --- | --- |
| **What** | **Owner** | **Time Estimate** |
| Review: The PM will ask the core team to review the risks to determine if they understand the risks enough to score. The team should notify the PM of any risk they are unsure of and the PM can clarify or get more information from the originator. The team will have 3 days to perform the review. | PM | 2 hours to review  2 hours management  3 days lag |
| Scoring: The project team will determine the impact and probability scores for each risk to calculate the risk score. They will use the tables in Section 2 of this document. | Project Team | 1. hours |

* 1. **Risk Monitoring and Control**

|  |  |  |
| --- | --- | --- |
| **What** | **Owner** | **Time Estimate** |
| Monitoring: Risk owners are responsible for monitoring their risks and notifying the PM via e-mail when a trigger occurs and that the response plan has been initiated. | Risk Owners | 4 hours |
| New Risk Identification: Any stakeholder can identify additional risks. The stakeholder should notify the project manager of the new risk (or possible risk) via e-mail. | Stakeholders | 1 hour |
| Audits: The PM will be responsible for overseeing risk activities and ensuring the risk register is updated. | PM | 2 hours per month |
| Review: The project team will review the project’s risks biweekly (in every other weekly team meeting). | Project Team | 1 hour per month |
| Reporting: Risks will be reported in two ways.  1st the PM maintain a Risk Log in the project repository. The Risk Log will contain a list of risks that are active on the project, the priority of the risk, the assignment, and a current status.  2nd the monthly Status report and the quarterly Large Project Oversight report will contain a summary of the Risk Log and any new risks identified and added to the Risk Register. | PM | 1. hour per month |

1. **Risk register**

The project’s risk register is located in the project repository at (insert link location here) and covers the following points.

* Date Identified – The date the risk was identified.
* Status – Identifies whether the risk is potential, active, or closed.
* Risk Description – A description of the risk.
* Risk Probability – The likelihood that the risk will occur. See the “Evaluating Risk Probability” section of the below for possible values. In this category the descriptive words Low, Moderate, or High will be used.
* Risk Impact – The effect o the project objects if the risk event occurs. See the “Evaluating Risk Impact” section of the table below for possible values. In this category the descriptive words Low, Moderate, or High will be used.
* Risk Score – Reflects the severity of the risks effect on objectives. The risk score is determined by multiplying the risk probability and risk impact values. The intent is to assign a relative value to the impact on project objectives if the risk in question should occur.
* Risk Assignment – Person(s) responsible for the risk if it should occur.
* Agreed Response – The strategy that is most likely to be effective.
  + *Avoidance* – Risk avoidance entails changing the project plan to eliminate the risk or condition or to protect the project objectives from its impact.
  + *Transference* – Risk transference is seeking to shift the consequence of a risk to a third party together with ownership of the response. Transferring the risk simply gives another party responsibility for its management; it does not eliminate it.
  + *Mitigation* – Risk mitigation seeks to reduce the probability and/or consequences of an adverse risk event to an acceptable threshold. Taking early action to reduce the probability of a risk’s occurring or its impact on the project is more effective than trying to repair the consequences after it occurs.
  + *Acceptance* – This technique indicates that the project team has decided not to change the project plan to deal with a risk or is unable to identify any other suitable response strategy.
* Risk Response Plan – Specific actions to enhance opportunities and reduce threats to the project’s objectives.