

Group 3 - Risk Management Plan

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**VERSION HISTORY**

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<b>1.0</b>	Group 3	02/05/2017	Michael Horne	02/05/2017	Start-up of Risk Management Plan. Added Sections 1.0 2.4.1-
<b>2.0</b>	Group 3	03/05/2017	Michael Horne	03/05/2017	Added sections 2.4.1 – 4.0

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## **1.0 Introduction**

Team 2's project office consisting of Project Manager, Michael Horne, and project team, Matthew Hill, Shawn Hammond, Matthew Holtan, and Khadija Hunt will partake as the risk management group. We will provide inputs to the project risks which we see as possible setbacks for the development of the new operating model. Project Manager, Michael Horne, will take on the role as Risk Manager and will delegate each risk in the risk matrix to the rest of Group 3. Once all risks have been identified by the risk management group, and the official project has been executed the risk manager will set-up a schedule to mitigate or transfer each risk which is identified in the identify risk process area.

### **1.1 Purpose of the Risk Management Plan**

“The objectives of project risk management are to increase the likelihood and impact of positive events and decrease the likelihood and impact of negative events in the project” (Project Management Institute, 2013, p. 309). This risk management plan will closely follow the PMBOK guide and define “...project risk as an uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives such as scope, schedule, cost, and quality” (Project Management Institute, 2013, p. 310). This risk management plan will attempt to identify, categorize, prioritize, control, or accept all the identified risks as well as develop procedures to adapt to unknown risks that occur.

Risk management is the process of attempting to control items that could both negatively or positively affect the project. All projects have uncertainty in some form or fashion. How will the employees react to the new changes, will there be new, unknown, problems that develop because of the change? Risk management starts before the acceptance of a project and is continually adjusted throughout the life of the project. All known potential risks will be

annotated in a risk register. This register will not only annotate the risk, but provide an educated guess on the probability the risk will occur, and the potential impact the risk has on the project. The potential impact is the severity of the risk, and the likelihood the risk will occur is the probability. When these two factors are combined, each risk will be given a priority level. If a risk has a high probability and a medium impact may have a higher priority than a risk with a low level of probability but a high impact. This information will allow the Project Manager to allocate resources in the correct areas and minimize the effects of the risks.

This project team has been hired as consultants to assist in the consolidation of several different departments into one unifying business unit with the same mission, vision, and an overall governance. The senior management of our customer has stated they do not want a new business model as this will be developed thru senior management. The purpose of this risk management plan is to ensure all three departments adapt the three separate departments into a unifying department without interfering with the individual department goals.

## **2.0 Risk Management Procedures**

This section of the risk management plan will summarize the necessary steps for responding to the various risks associated with this project. Project risk management includes the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on the project (Project Management Institute, 2013).

The processes of the risk management plan starts with the plan. This process defines how to conduct risk management activities for a project.

**Table 1. The Risk Management Process**

<b>Step</b>	<b>Risk Procedure</b>	<b>Description</b>
1	Risk Identification	Analyze the project to identify sources of risk
2	Risk Assessment	Assess in terms of: <ul style="list-style-type: none"> <li>• Severity of impact</li> <li>• Likelihood of occurring</li> <li>• Controllability</li> </ul>
3	Risk Response Development	<ul style="list-style-type: none"> <li>• Develop strategy to reduce possible damage</li> <li>• Develop contingency plans</li> </ul>
4	Risk Response Control	<ul style="list-style-type: none"> <li>• Implement risk strategy</li> <li>• Monitor and adjust plan for new risk</li> <li>• Change management</li> </ul>

*Note.* Adapted from “Project Management The Managerial Process,” (6<sup>th</sup> ed.), by Larson, E. W., & Gray, C. F., 2014, p. 7. New York, NY: McGraw-Hill Education.

Risk identification is one of the risk management processes that determines which risk may affect the project and document their characteristics. Organizations can use a risk breakdown structure in conjunction with the WBS to help management teams identify and eventually analyze risk (Larson and Gray, 2014).

The risk analysis process will be performed through qualitative and quantitative measures. Qualitative risk analysis process assesses and evaluates characteristics of individually identified project risk and prioritize risks based on agreed-upon characteristics (Project Management Institute, 2009).

The plan risk response process determines the set of actions which most enhance the chances of project success while complying with applicable organizational and project constraints. This planning entails coordinating with the project team and stakeholders on actions to be taken and the potential changes to budget, schedule, resources, and scope which these actions might cause (Project Management Institute, 2009).

Risk Metrics is a methodology that contains techniques and data sets of the attributes to which is being measured. The risk breakdown structure will identify the risk, the analysis will show where and how much risk there is and the metrics will be the units of measurement.

## **2.1 Process**

In this project, Team 3, will use varying risk management processes to create a risk management plan. According to Project Management Institute (2013), project risk management "includes the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project" (p. 309). In this risk management plan Team 3 will use the following processes to conduct a proper, thorough risk analysis and provide solutions of our risk analysis for the support of the development of a new operating model for a major corporation. The processes in our risk plan are: plan risk management, identify risks, perform qualitative risk analysis, and plan risk responses. In the following paragraphs, I will discuss each process and how we will incorporate into our risk management plan.

**2.1.1 Plan Risk Management.** In the plan risk management process area, we will define how we will proceed to conduct risk activities associated with operating model (Project Management Institute, 2013). This plan is vital because we will need buy-in from all stakeholders involved to ensure this risk plan is properly executed from start to finish. We will get inputs from the following to help us create the plan: project charter, stakeholder register, enterprise environmental factor (EEFs) and organizational process assets (OPAs). The project charter will provide Team 3 with high-level risks, and the stakeholder register will provide all relevant stakeholders which we need buy-in from. The OPAs provided in the case study will help Team 3 draw a conclusion on the risk categories, and roles and responsibilities needed to properly execute this plan.**2.1.2 Identify Risks.** Identifying risk in project management is an iterative

process that should start with the best possible identification of risks as early as possible. A Clear understanding of the scope, resources, financial status, and schedule are good first inputs to help identify initial project risk. As the planning proceeds and more risks are identified, these must undergo the same process of identification, qualitative analysis, quantitative analysis, develop a risk response, and then finally monitor and controlling the risk (Project Management Institute, 2009). This has to occur with identified risks as they appear and agreed to by the appropriate stakeholders. For this project, the merging of multiple teams with very different ways of operating is a risk in itself. But specific risks associated with the merger will be identified by project team members with reinforcement from leadership and will help inform leadership's need to create a new organizational structure that will support not only the merger but ongoing project execution by the new IT department. Starting early the team will use tools like a historical review of similar mergers, a look at the project as it is currently and finally using tried and true mitigation techniques or utilizing the appropriated resources to come up with logical and creative solutions to control the risk. Finally, all risks will be recorded as the risk register will all initial information on how, what and why.

**2.1.3 Perform Qualitative Risk Analysis.** The end goal of performing this qualitative risk analysis is to further update the risk registry and clarify it by giving each individual risk a priority based on likelihood (probability) and the risk's potential impact on the project whether negative or positive. An important aspect of assessing each risk is the standardization of terms. To that end, the PMBOK guide definitions for probability will be referenced and used to

standardize terminology for analysis of the risk with respect to probability and impact. See Appendix B and Appendix C for Probability and Impact Matrix.

Another aspect to be concerned with during the qualitative analysis is the understanding of the risk itself. Evaluating this understanding and the quality of the data used to help qualify the decision will be part of a risk data quality analysis. This can help with the prioritization of the risk based on the risk management teams understanding or not, based on a lack of documentation or understanding of the risk. Overall understanding and prioritization of the risk for the update to the risk registry will combine these analyses with categorization (based on what part of the project the risk effects), an assessment of the risk's urgency, and expert judgment. As the risks are prioritized they will also be relayed to those responsible for further analysis or action to mitigate or monitor the probability as the project proceeds. As a matter of course, higher risk, more impactful risks will be monitored more often while lower risks will be monitored appropriately.

**2.1.4 Plan Risk Responses.** Risk response development does not only plan the mitigation of the risk, should it occur, but also provides the important information and communications that must be in place to even identify the risk is occurring. Trigger points and other causal factors should be identified and communicated to those responsible for the monitoring of the risk. These communications should also include who is responsible for what in the response. When the timing of the response is determined there should also be a planned budget reserve, resources, and related schedule impacts. When developing the responses, there are many other factors to consider as well. One strategy is to utilize the personnel affected by the risk to determine the best way to the project back on track soonest. All the responses need to be agreed upon by the appropriate stakeholders and analyzed as to how they may affect other parts of the project. These

stakeholders can also be used to help determine the best response strategy. Project Management Institute (2009) has generic responses for negative and positive risks defined as avoid a threat and exploit an opportunity, transfer a threat or share an opportunity, mitigate a threat or enhance an opportunity, and finally, accept a threat or opportunity. Those strategies will provide the baseline for considering how to plan the threat responses while evaluating the best way forward for the merger of the IT departments. Agreed upon responses will then be documented in the risk register with all pertinent information relating to the response and its necessary resources and owner. Changes to any other project plans connected to the risks including resource documentation and the project management plan.

## 2.2 Roles and Responsibilities

The consultant group is an internal project to Alpha Corporation. The risk management plan identifies the roles and responsibilities in the risk management plan. Each of these roles is described below:

- Stakeholders - The stakeholders for this project includes project consultants, subcontractors, subject matter experts, leads of all departments, suppliers and anyone from Alpha Corporation familiar with the risk management plan. Anyone associated with the project can participate in risk identification and is encouraged to notify the Project Manager (Mike Horne) promptly if he or she becomes aware of a potential event that could threaten project success.
- Risk Owner (Matt Holtan and Khadija Hunt) - A risk owner is a member of the project team designated by the Project Manager to coordinate the analysis of a specific risk. The risk owner is responsible for assuring that the analysis is performed, documented, and the results are provided to the Project Manager in a timely manner. While a risk is in active status (being actively monitored, risk has not yet occurred), the risk owner is responsible for monitoring the

risk and notifying the project manager if the risk occurs or if the risk owner believes the likelihood of the risk occurring has changed significantly since the analysis was performed.

- Project Manager/Risk Manager (Mike Horne) — The Project Manager is responsible for initially receiving all risks identified, assuring that records of all identified risks are kept, assigning risks to a risk owner for analysis, reviewing the results of that analysis to develop response recommendations and presenting those recommendations to the sponsor. Once recommendations are agreed upon, the Project Manager is responsible for coordinating changes to project plans to implement responses. The Project Manager is also responsible for assuring that risks are periodically reviewed to identify possible changes in the likelihood or impact of risks, and identification of new or changed responses. Finally, the Project Manager is responsible for creation and maintenance of the Risk Management Plan.

- Project Sponsor (Dr. Sami Khan) - The project sponsor is responsible for executive decision-making on the Alpha project. All projects have risks. This Risk Management process will identify project risks and recommend how resources are allocated to deal with them. Only the sponsor has the authority to determine whether the responses planned for identified risks are sufficient. The sponsor will review and approve all proposed risk responses and any changes in risk responses.

- Project Team (Matthew Hill, Michael Horne, Khadija Hunt, Matthew Holtan, Shawn Hammond) - The Consultant Group or Risk Management Team, is responsible for identifying risks, the dependencies of the risk within the project, contexts, and consequences of each risk. They are responsible for determining the impact, timing, and priority of the risk as well as forming risk statements.

## 2.3 Risk Identification

To create an accurate and effective risk management plan, risks must first be identified. Identifying risks is the first and perhaps the most important step in the risk management process. Risk identification is not solely creating a list of possible items, triggers, or events that could negatively affect the project; they must be categorized, placed in a register, analyzed and continuously revisited and updated. There are many types of risk identification methods. Some of these methods include brainstorming, interviews, surveys, experiential knowledge, documented knowledge, lessons learned, historical information and risk lists. The risk management plan will discuss the methods associated with risk identification, the creation of a risk register, and the category of risk. It is essential to note in this risk management plan, both negative and positive risks will be identified. The primary stakeholders and project owners will require an analysis of all possible risks to determine the best utilization of resources and determining the most efficient and effective courses of action.

Risk identification has several inputs to include the risk, cost, schedule, quality, and the human resource plan. Additionally, the project scope, stakeholder register, and activity cost and duration estimates are required (Project Management Institute, 2013, p. 319). These items are required to thoroughly identify the risks associated with a project. Once all the inputs are available, several tools and techniques may be used when identifying risks. These will be discussed in the following section, methods for risk identification.

**2.3.1 Methods for Risk Identification.** “A structured review of the project documentation may be performed, including plans, assumptions, previous project files, agreements, and other information. The quality of the plans, as well as consistency between those plans and the project

requirements and assumptions, may be indicators of risk in a project” (Project Management Institute, 2013, p. 324).

**Documentation review:** A proficient project manager reviews similar projects that have already been completed to review previous risk matrices, determine what risks occurred, and what occurred the previous project managers did not foresee. Review these documents will also accelerate the risk identification process as well as utilize the expertise from previous teams.

**Information Gathering:** There are several techniques for gathering risk information. The project manager could schedule a meeting with all team leaders and brainstorm a list of potential risks. The PM should utilize the technique of requiring the team leaders to generate a risk list before the meeting, then as a group brainstorm the final risk register, to include a probability of occurrence and the level of affecting the risk if it occurs (Neidlinger, 2016). A PM could utilize the Delphi technique. The Delphi technique utilizes a questionnaire sent to experts in the team designed to generate a list of risks (Project Management Institute, 2013). Once a list of risks is created, identifying the root cause of the risk may assist the PM in grouping risks, allowing for a single corrective action that is implemented to positively affect multiple risks simultaneously.

**Checklist Analysis:** When similar projects are completed on a routine basis, a checklist of known risks can be developed. This checklist would ensure common risks are not forgotten. Once a project is completed, the project manager should ensure new risks are added to the checklist for future projects.

**Diagramming:** In addition to creating a risk register, diagramming risks creates a flow where risks can be analyzed, and proper mitigation techniques implemented.

**SWOT Analysis:** SWOT is an acronym for strengths, weaknesses, opportunities, and threats (Symonds, 2011). SWOT places risks into one of the four categories. This technique can

be used for the entire project or a particular portion of the project that might be experiencing difficulties. A SWOT evaluation for this project might be beneficial if a new software system might be implemented across the different departments. Identifying the SWOT for the software, allows the key decision makers for the project to fully understand the benefits as well as risks associated with the decision.

**2.3.2 Risk Register.** The purpose of risk register is to document what Group 3 has accomplished by our Qualitative Risk Analysis. The risk register will identify all our identified risks, a description of the risk, it's category in which we defined, the probability of it occurring, the impact of it, the final risk score, and our responses to the risk (Project Management Institute, 2009). See Appendix A for Group 3's risk register.

**2.3.3 Risk Category.** See the following table, Risk Category Description, for a list of each category in which we categorized our risks and a description of each.

**Table 2. Risk Category Description**

<b>Risk Category Name</b>	<b>Risk Category Description</b>
Technical	Risks that impact the combined team's ability to properly continue to execute quality technically adequate projects.
Organizational	Risks caused by the new organizational structure that impact the ability of the project to meet scope, cost, quality, or schedule and alter project goals.
External	Risks that potentially impact the scope, cost, quality, or schedule of the project from outside the project.
Project Management	Risks that potentially impact the scope, cost, quality, or schedule of the project based on project management constraints.
Resource	Risks that impact the scope, cost, quality, or schedule with respect to resources.
*Qualitative Impact	See Appendix B and Appendix C - Probability Impact Matrix

## 2.4 Risk Analysis

Project Risk Analysis is a process which enables the analysis and management of risks associated with a project. Properly undertaken it will increase the likelihood of successful completion of a project to cost, time and scope. Risk analysis is the stage of the process that is generally split into two ‘sub-stages’; a qualitative analysis that focuses on identification and subjective assessment of risks and a quantitative analysis that focuses on an objective assessment of the risk (Perry, 2000).

Qualitative Risk Analysis is the process of prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact (Project Management Institute, 2013). This will reduce the level of uncertainties pertaining to high-level risks. This process assesses the priority of identified risk by using how likely they will occur and how much it will impact the project. The qualitative risk analysis process is performed regularly throughout the project life cycle, as defined in the risk management plan.

Inputs would include reference to the risk management plan. Specifically, roles and responsibilities, budgets, definitions, impact matrix, and revised stakeholder risk tolerances. These can be further developed or tailored throughout the project life cycle. The scope baseline gives insight on what the project is about. This would include the project scope statement and the WBS. Other key inputs to the qualitative risk analysis would include the risk register, enterprise environmental factors, and the organizational processes assets.

Tools and techniques used for qualitative risk analysis would include assessing the probability or likelihood of the risk, and the impact it could have. The probability and impact matrix evaluates each risk’s importance and priority for attention using a look-up table. The probability and impact matrix can be seen in Appendix B and Appendix C.

Risk data quality assessment is a technique to evaluate the degree to which the data is understood, and the data pertaining to the risk is accurate. The risk breakdown structure (RBS) can be used to categorize sources of each risk. Risk can also be categorized by their root causes. This technique is helpful in developing effective risk responses.

Outputs from the qualitative risk analysis would include updating project documents. The risk register will need to be continuously monitored and updated throughout the life cycle of the project. Other updates would include the assumption log. When risks become more identifiable through performing the risk analysis, assumptions could change. This will need to be updated as well.

**2.4.1 Qualitative Risk Analysis – Probability and Impact Matrix.** The purpose of our probability and impact matrix is to define our impact or severity of consequence and the probability or likelihood of occurrence with the stated attributed. Using these attributes and risk register we will provide the Risk ID's of each risk we came up with and implement into our probability and impact matrix table. See Appendix B and Appendix C for Probability and Impact Matrix.

#### **2.4.2 Quantitative Risk Analysis.**

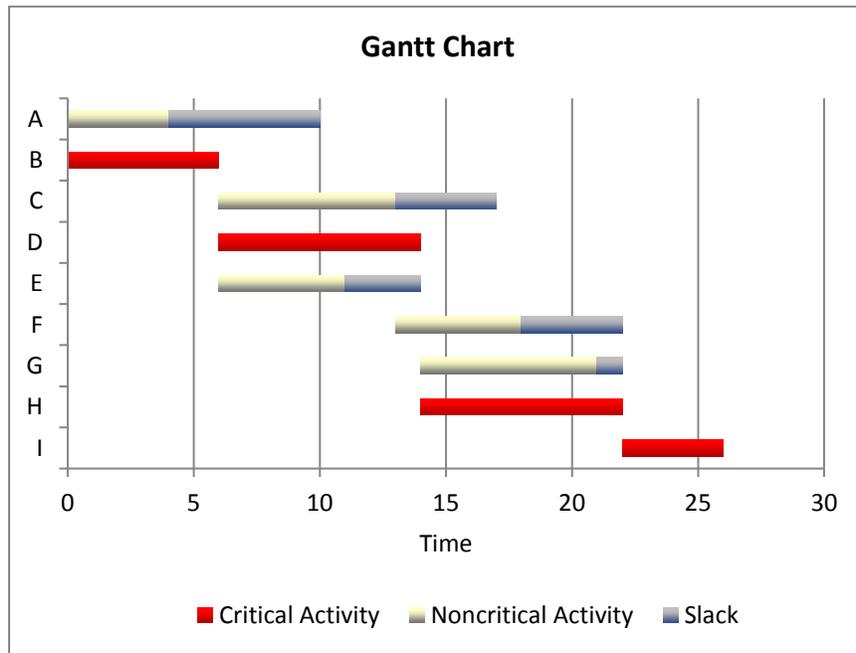
**Table 3. Input Table**

<b>Activity</b>	<b>Time</b>	<b>Predecessor 1</b>	<b>Predecessor 2</b>	<b>Predecessor 3</b>
<b>A</b>	4 Weeks			
<b>B</b>	6 Weeks			
<b>C</b>	7 Weeks	A	B	
<b>D</b>	8 Weeks	B		
<b>E</b>	5 Weeks	B		
<b>F</b>	5 Weeks	C		
<b>G</b>	7 Weeks	D		
<b>H</b>	8 Weeks	D	E	
<b>I</b>	4 Weeks	F	G	H

**Table 4. Results Table**

Activity	Early Start	Early Finish	Late Start	Late Finish	Slack
A	0	4	6	10	6
B	0	6	0	6	0
C	6	13	10	17	4
D	6	14	6	14	0
E	6	11	9	14	3
F	13	18	17	22	4
G	14	21	15	22	1
H	14	22	14	22	0
I	22	26	22	26	0

Note: Activities with 0 slack are in red, are part of the critical path



**Figure 1. Gantt Chart**

Project time	Period cost	Cumulative cost	Activities to crash
26	0	0	
25	500	500	I
24	500	1000	I
23	750	1750	B
22	750	2500	B
21	750	3250	B
20	750	4000	B
19	3000	7000	H
18	3000	10000	D
17	3500	13500	A, D
16	3500	17000	A, D
15	4416.67	21416.67	D, E, F
14	4550	25966.67	F, G, H
13	5300	31266.67	C, G, H
12	5300	36566.67	C, G, H

**Figure 2. Resulting Table Output**

## 2.5 Plan Risk Responses

“Plan Risk Response is the process of developing options and actions to enhance opportunities and to reduce threat to project objectives. The key benefit of this process is that it addresses the risks by their priority, inserting resources and activities into the budget, schedule and project management plan as needed” (Project Management Institute, 2013, p.341) There are two major inputs into the plan risk response process; The Risk Management Plan and the Risk Register. The risk register is organized so the risks that potentially have the greatest positive or negative impacts are placed first. The risk register places all risks into one of four risk responses: avoid, exploit, mitigate, or accept. The project manager has determined, with this project, risks will not be transferred to a third party, but managed within the company and project team.

Risks that have been placed in the “avoid” category, are risks that necessary resources must be utilized to adapt the current plan to reduce the probability and impact in such a way

these values reach zero. An example of avoidance would be to change the scope of the project to ensure a risk does not happen. (Project Management Institute, 2013, p.343)

Risks that are placed in the exploit category, are positive risks or opportunities that can only benefit the overall project. Exploitation of these risks need to be balanced against cost. A risk that must be exploited that costs a lot of resources, but produces only a small benefit should not be pursued. Any new risk identified as “exploit” should be immediately brought to the attention of the team leader or project manager. (Project Management Institute, 2013, p. 344)

Most risks will fall into the mitigate category. Risks that have been categorized as “mitigate” require a varying amount of resources usage with the goal of lowering either the probability or impact of the risk. An example of a “mitigate risk” would be poor training on new software systems. The mitigation factor would be multiple training opportunities on new systems by all affected employees. (Project Management Institute, 2013, p. 344)

Risks that fall into the accept category, are risks that have a very low probability of occurring or a low impact if they occur. These risks will not require any resources to mitigate. A response strategy should still be provided if the risk occurs. An example of an “accept risk” would be extreme weather that causes work stoppage for an extended period. There is nothing the team can do to minimize the probability it occurs, but a response plan should be developed to respond if the risk occurs. (Project Management Institute, 2013, p. 344)

The outputs of the Risk Response Plan are the project management plan and documents update. The risk register is adjusted to correctly identify the new value of risks after mitigation factors have occurred. Updating of the register will also include risk response trigger points, response actions and the stakeholder responsible for those actions.

**Table 5. Risk Response Description**

<b>Risk Response</b>	<b>Description</b>
Avoid	Eliminate the threat or condition to protect the project objectives from its impact by eliminating the cause
Mitigate	Identify ways to reduce the probability or the impact of the risk
Accept	Nothing will be done
Transfer	Shift the consequence of a risk to a third party together with ownership of the response by making another party responsible for the risk (buy insurance, outsourcing, etc.)

## 2.6 Risk Metrics

Risk metrics can be defined as the attributes that is associated with the risk that is being measured (Kendrick, 2005). Unlike risk measure, which pertains to the operation that assigns a value to a risk, the metrics, quantifies the uncertainty. For example, the probability of rain is a risk metric that only quantifies uncertainty, not potential exposure. The standard deviation of tomorrow's price on certain stocks is a risk metric. Useful metrics should contain three properties: support larger objective, influence behavior and assist in good decision-making. Metrics that improve the quality of decision-making also contribute to the overall lowering of risk probability.

While there can never be the total elimination of certain risks, bringing objective data based on project metrics into decision, discussions, and negotiations can help project managers tremendously (Kendrick, 2005). The author outlines three major types of risk metrics.

1. Predictive project metrics serve as a distant early warning system for project risk. It assists in determining project scale, identifying the need for mitigation and other revisions, as well as determining contingency planning. These metrics are done in the early stages of the project. These metrics are more speculative rather than using empirical data, therefore they are the less precise.

2. Diagnostic project metrics are based on project status information; diagnostic project metrics assess the current state of an ongoing project. Trigger risk responses and other actions in the Risk Register could be a diagnostic metric. Also, the assessment of the impacts of project changes as well as helping to decide when to modify or “crash” certain areas of the project.

3. Retrospective project metrics are the metrics which determine how well a process worked after it is completed. These metrics can track trends, identify recurring sources of risk, determine empirical expectations for the “unknown” project risks, which can help make decisions to improve or replace a certain project process. These types of metrics are more associated with quantitative risk management. These metrics tends to be more labor intensive and require more time to assemble, however the level of accuracy tends to be higher as well as useful tool for updating documents and the organization process assets.

In closing, different projects will face different challenges, no single combination of measurement can fit every situation. It is important that the project team only collects the metrics that will be meaningful towards the project. As a team, the metrics collected should be used for monitoring and controlling, identifying opportunities, and determining trends.

The risk metrics for our Risk Management Plan can be found in Appendix A – Risk Register. Risk metrics are the measures used to monitor risks as the project proceeds and along with the trigger point inform the decision to activate the response plan or change the plan accordingly. Metrics should be measured that are relevant, adequate, valid, and easy to measure. Relevant to the risk. Adequate to detect the necessary change. Valid in time and accuracy, and easy to measure without additional cost to the project (Tayntor, 2010).

### 3.0 Risk Status Report

Risks can never be completely removed from any project; therefore, they must be control to mitigate the possible negative consequences or exploit possible advantages. The Risk Status reports are one of the outputs associated with PMBOK, 11.6 Control Risks. Risks status reports and other tools and techniques to include risk audits, variance and trend analysis and continuous risk assessments are required (Project Management Institute, 2013, p. 349). Risk identification, classification, mitigation, and allocating resources in a continuous process. Once the risk register is completed, to include all the sub procedures, the task of risk management is not complete. As changes to a project occur, deliverables completed, and additions or subtractions from the original planned charter occur, the risks must be reassessed. As an example, as a project completes each deliverable, and triggers for each risk are passed without occurring, the overall probability of the risk reduces. The reduction of one risk might elevate the importance of another risk, therefore the risk register must be continuously adjusted. These adjustments occur through meetings with key stakeholders and use of a risk status report.

Risk status reports include information from the risk register, work performance data reviews, project schedule progress, and status of deliverables (MyManagementGuide, 2010). During each project status meeting, the risk status report, see Table 6, will be reviewed and risks reassessed. If a trigger has occurred, the risk register will be referenced for the pre-planned response initiated. In addition to risks triggers that have occurred, risk triggers that have passed and not occurred will initiate a revision of the probability of each risk, and the final risk value will be adjusted.

To complete, Table 6 – Weekly Risk Status Report, follow the notes below the table which will give the risk analysis team a step-by-step instruction on how to complete the table

based off previous risk levels and triggers found in the risk register. The risk register can be found in Appendix A.

**Table 6. Weekly Risk Status Report**

<b>Project: Consultant Group Risk Analysis Plan</b>					<b>Date: 03/05/2017</b>	
<b>Risk ID</b>	<b>Original Risk Level</b>	<b>Trigger Occur (Y or N)</b>	<b>Controls Implemented</b>	<b>New Risk Level</b>	<b>Completed / Due Date</b>	<b>Risk Owner Comments</b>
Example	15	Y	Overtime authorized to ensure on time completion	18	14-Mar-17	Project Manager
Example	8	N	Original controls in place	8	On time	Technical Team Leader
1	20					Project Manager
2	10					Project Manager
3	6					Technical Team Leader
4	9					Project Manager
5	12					Technical Team Leader
6	12					Technical Team Leader
7	16					Project Manager
8	6					Project Manager
9	16					Project Manager
10	8					Project Manager
11	4					Project Manager
12	5					Project Manager
13	10					Project Manager
14	15					Resource Team Leader
15	9					Resource Team Leader

<b>Project: Consultant Group Risk Analysis Plan</b>					<b>Date: 03/05/2017</b>	
<b>Risk ID</b>	<b>Original Risk Level</b>	<b>Trigger Occur (Y or N)</b>	<b>Controls Implemented</b>	<b>New Risk Level</b>	<b>Completed / Due Date</b>	<b>Risk Owner Comments</b>
16	12					Technical Team Leader
17	20					Technical Team Leader
18	20					Technical Team Leader
19	5					Project Manager

Note: For example, Risk 1 states “leadership transition changes required by executive sponsors creates changes in original plan”. If there are any leadership changes, the project manager ensuring that the project stays on schedule will mitigate the impact of leadership changes on the project’s schedule. In the risk status report table below, the following information would need to be filled out for risk 1: Trigger Occur- “Y”. Controls Implemented- “increased communication and partnership between leadership and team through daily recaps to ensure project stays on track regardless of leadership changes”. New Risk Level - “10”. Completed: “Yes”.

#### **4.0 Risk Closure Process**

The final process of our Risk Management Plan is the risk closure report process. During this process, we review our response plan, metrics, and review any remaining risks which remain open. This report will provide confirmation that any remaining risks will be captured and will be noted for the remaining project. The project will not be closed until all risks are properly understood and closed, or understood and will be completed in the project at the time scheduled. Table 7, Risk Closure Report, will give statuses of the risks and their completion.

**Table 7. Risk Closure Report**

<b>Risk ID</b>	<b>Risk Date</b>	<b>Risk Owner</b>	<b>Accepted By</b>	<b>Date of Acceptance</b>
1	01/26/2017	Michael Horne		
2	01/26/2017	Matthew Hill		
3	01/26/2017	Khadija Hunt		
4	01/26/2017	Matthew Holtan		
5	01/27/2017	Shawn Hammond		
6	01/27/2017	Michael Horne		
7	01/27/2017	Matthew Hill		
8	01/27/2017	Khadija Hunt		
9	01/27/2017	Matthew Holtan		
10	01/27/2017	Shawn Hammond		
11	01/27/2017	Michael Horne		
12	01/27/2017	Matthew Hill		
13	01/27/2017	Khadija Hunt		
14	01/27/2017	Matthew Holtan		
15	01/27/2017	Shawn Hammond		
16	02/16/2017	Michael Horne		
17	02/16/2017	Matthew Hill		
18	02/18/2017	Khadija Hunt		
19	02/16/2017	Matthew Holtan		

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## Appendix A

## Risk Register

Project Title: Consultant Group Risk Analysis Plan									Date Prepared: 02/03/2017						
Risk ID	Risk Date	Risk Owner	Risk Statement	Probability Likelihood Frequency	Impact				Score	Risk Category	Risk Response Strategy	Execution Trigger	Impact on other Projects	Response Plan	Risk Metrics
					Scope	Quality	Schedule	Cost							
1	01/26/2017	Michael Horne	If leadership transition changes required by executive sponsors, then it will create changes in original plan	4			4		20	Organizational	Mitigate	When original plan is abruptly changed by leadership.	Some impact	Create new plan which all parties have buy-in	Digital response. If leadership changes immediately brief project and acquire required changes to re-baseline project
2	01/26/2017	Matthew Hill	If preordained budget cap is exceeded, then the project cannot support required change	2				5	10	Project Management	Mitigate	When budget is exceeded.	Major impact	Re-scope project, focusing on keeping project below budget.	Budget Fidelity
3	01/26/2017	Khadija Hunt	If team combination happens, then it will lead to less technically rigorous solutions for project completion	3		2			6	Technical	Accept	When the technical rigor of project solution begins to fail.	Major impact	Update quality plan for new technical standards.	% rework based on customer feedback
4	01/26/2017	Matthew Holtan	If team combination happens, then team building dynamics will delay projects initially	3			3		9	Organizational	Accept	When team dynamics starts delaying project progress.	Major impact	Update schedule management plan for usable standards.	Schedule Fidelity
5	01/27/2017	Shawn Hammond	Inexperienced or understaffed IT staff will not accomplish IT project goals.	3		4			12	Technical	Accept	When IT staff stops accomplishing IT goals.	Unacceptable	Develop training plan for IT personnel.	Budget Fidelity Schedule Fidelity
6	01/27/2017	Michael Horne	If new business lead will not adapt to agile methods, then project management processes will suffer.	4		3			12	Technical	Accept	When new business lead stops utilizing agile methods.	Major impact	Approach steering committee about hiring new business lead to accomplish agile tasks or have a lateral transfer within business unit with already trained agile specialist.	EVA evaluated and compared to leadership when leadership changed
7	01/27/2017	Matthew Hill	If we don't get buy-in from departmental leadership to standardize requirements and deliverables with the entire business unit in mind, then the business unit will suffer.	4	4				16	Organizational	Mitigate	When departmental leadership fails to standardize requirements and deliverables.	Major impact	Create standardized requirements and get sign offs from executive steering committee to implement.	% scope change since leadership change
8	01/27/2017	Khadija Hunt	If we consolidate three business leads into one business lead, then the	2			3		6	Organizational	Accept	When the other departments start complaining about team cohesion.	Moderate impact	Create lessons learned from feedback from teams and approach	Monitor team dynamics and EVA for individual WBSs

			other departments will not support the change.										steering committee about different ways to approach the issue.		
9	01/27/2017	Matthew Holtan	If we consolidate three executive steering boards into one, then the other departments will not support the change.	4				4	16	Organizational	Mitigate	When the other departments start complaining about team cohesion with new steering committee.	Moderate impact	Create lessons learned from feedback from teams and approach steering committee about different ways to approach the issue.	Monitor team dynamics and EVA for individual WBSs
10	01/27/2017	Shawn Hammond	If we adjust the organizational structure, then the entire business unit might create chaos within the work department.	2	4				8	Organizational	Accept	When department cannot adjust to new organizational structure.	Major impact	Continue to adjust structure until the business units find cohesion.	Monitor schedule fidelity and team dynamics
11	01/27/2017	Michael Horne	If the staff doesn't have the appropriate training, then they won't have the right expectation about the job.	4	1				4	Organizational	Accept	When staff starts complaining about not being able to complete their job because of inadequate training.	Moderate impact	Develop training plan for all job functions.	Monitor team dynamics and EVA for individual WBSs
12	01/27/2017	Matthew Hill	If there is an inefficient team structure, then it will reduce productivity (poor team dynamics).	5			1		5	Organizational	Accept	When productivity starts to lack and team dynamics fails.	Major impact	Develop plans to implement team rapport events.	Schedule quarterly events and monitor team dynamics
13	01/27/2017	Khadija Hunt	If project management team doesn't give buy-in, then project management practices may suffer.	5		2			10	Project Management	Mitigate	When multiple projects fall behind schedule and over budget.	Unacceptable	Re-scope project to get project management in line.	EVA metrics % scope change since leadership change
14	01/27/2017	Matthew Holtan	If exiting sponsor doesn't want new position, then will the budget or new resource needed affect the business unit.	5	3				15	Resource	Mitigate	When exiting sponsor quits or doesn't accept new position.	Moderate impact	Hire new sponsor.	Digital. There is no project without a sponsor. Either someone from management takes on the project as sponsor or the project is cancelled
15	01/27/2017	Shawn Hammond	If additional resources aren't available for projects, then will budget and schedule suffer.	3				3	9	Resource	Accept	When budget and schedule suffer because of no additional resources to assist.	Some impact	Re-scope project schedule or approach about hiring new resources.	Monitor SPI and management reserve for capability to make changes
16	02/16/2017	Michael Horne	If there isn't a centralized data center and maintenance contract, then will the company be able to promote knowledge management.	4				3	12	Technical	Exploit	When company knowledge management system is lacking compared to industry standards.	Moderate impact	Re-scope cost management plan to get knowledge management system upgraded to industry standards.	Monitor EVA metrics and management reserve for upgrade
17	02/16/2017	Matthew Hill	If there isn't common software utilization, then will the company be able to promote knowledge management.	5		4			20	Technical	Exploit	When company knowledge management system is lacking compared to industry standards.	Moderate impact	Re-scope quality management plan to get knowledge management system	Monitor quality metrics and management reserve for new software

														upgraded to promote proper software.	
<b>18</b>	02/18/2017	Khadija Hunt	If the company doesn't use technological upgrades/new technologies, then will the company be able to reduce cost and duration.	4				5	20	Technical	Exploit	When existing systems doesn't allow user friendly interface and new system doesn't work.	Moderate impact	Re-scope cost management plan to get knowledge management system upgraded to industry standards.	Monitor % rework required to get system working and management reserve for new software and hardware
<b>19</b>	02/16/2017	Matthew Holtan	If new systems are inoperable, then will it create stoppage of current work.	1			5		5	Project Management	Avoid	When work cannot be complete because of system inoperability.	Moderate impact	Re-scope configuration and quality management plan to get systems operable.	Monitor SPI and management reserve for necessary changes

## Appendix B

### Probability and Impact Matrix

Directions: The 5 x 5 matrix is used in conjunction with a probability and impact matrix that defines each cell in the matrix. Using the blank template below, create your own table that includes rating level titles, definitions, and rating values in the two categories of “Impact” and “Probability.”

Impact / Severity of Consequences			Probability / Likelihood of Occurrence			
Severity Level	Definition	Value	Likelihood Level	Definition	Numeric Probability	Value
1	<b>Cost</b> – Minimal or no impact <b>Schedule</b> – Minimal or no impact <b>Technical</b> – Minimal or no impact	1-6	1	Not Likely	~ 10%	1-6
2	<b>Cost</b> – Cost increase or unit production cost increases of < 1% of cost/budget <b>Schedule</b> – Additional activities required, able to meet key dates. Slip of < 2 weeks <b>Technical</b> – Minor technical/supportability shortfall (no impact to key performance parameters, operational evaluation, or critical operational issues)	1-6	2	Low Likelihood	~ 30%	1-6
3	<b>Cost</b> – Cost increase or unit production cost increases of < 5% of cost/budget <b>Schedule</b> – Minor schedule slip, no impact to key milestones. Slip of < 1 months <b>Technical</b> – Moderate technical/supportability shortfall; limited impact to program	8-12	3	Likely	~ 50%	8-12

Impact / Severity of Consequences			Probability / Likelihood of Occurrence			
Severity Level	Definition	Value	Likelihood Level	Definition	Numeric Probability	Value
4	<p><b>Cost</b> – Cost increase or unit production cost increase of &lt; 10% of cost/budget</p> <p><b>Schedule</b> – Program critical path affected, all schedule float associated with key milestones exhausted. Slip of &lt; 2 months</p> <p><b>Technical</b> – Major technical/supportability shortfall; may jeopardize program success; workarounds may not be available</p>	15-25	4	Highly Likely	~ 70%	15-25
5	<p><b>Cost</b> – Exceeds agreed upon threshold amount &gt; 10% of cost/budget</p> <p><b>Schedule</b> – Cannot meet key program milestones. Slip of &gt; 3 months</p> <p><b>Technical</b> – Cannot meet key performance parameter or key technical/supportability threshold</p>	15-25	5	Near Certainly	~ 90%	15-25

Appendix C

5x5 Probability and Impact Matrix

<b>Impact</b> Probability	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>5</b>	5 <b>(2,3)</b>	10 <b>(10)</b>	15 <b>(15)</b>	20 <b>(19)</b>	25
<b>4</b>	4 <b>(1)</b>	8 <b>(7)</b>	12 <b>(13,14)</b>	16 <b>(16,17,18)</b>	20
<b>3</b>	3	6 <b>(5)</b>	9 <b>(8,9)</b>	12 <b>(12)</b>	15
<b>2</b>	2	4	6 <b>(4)</b>	8 <b>(6)</b>	10 <b>(11)</b>
<b>1</b>	1	2	3	4	5

## Appendix D

### Risk Management Plan Approval

The undersigned acknowledge that they have reviewed the Consultant Group Risk Analysis Plan and agree with the information presented within this document. Changes to this Risk Management Plan will be coordinated with and approved by, the undersigned, or their designated representatives.

Signature:	<i>Michael Horne</i>	Date:	03/05/2017
Print Name:	Michael Horne		
Role	Project Manager		

Signature:	<i>Matthew Hill</i>	Date:	03/05/2017
Print Name:	Matthew Hill		
Role	Configuration / Project Team		

Signature:	<i>Shawn Hammond</i>	Date:	03/05/2017
Print Name:	Shawn Hammond		
Role	Project Team		

Signature:	<i>Matthew Holtan</i>	Date:	03/05/2017
Print Name:	Matthew Holtan		
Role	Project Team		

Signature:	<i>Khadija Hunt</i>	Date:	03/05/2017
Print Name:	Khadija Hunt		
Role	Project Team		