

Project (Spring 2021)

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Project Risk Management

Instructions:

- This project should contain the following (introduction, Literature Review, Methodology, Results and Discussion, and References)
- Theme is as following:
 - Font: Arial
 - size is 12
 - Line spacing 1.5
- Number of pages should be between 4-6 max
- Due date is May 17, 2021

Project:

Risk Identification and Analysis (Based on the project you chose in APM)

The objective of this report is to identify project risks, prepare a risk probability matrix, and carry out an analysis of selected risks. Referring to the project you select in **Advanced projects management APM course**, your task is to prepare a risk management plan that identifies potential risks in **the selected stage of the project** and identify risk management strategies.

From the course content and readings, you know that the overall purpose of risk planning is to anticipate possible risk events and be ready to take appropriate action when risk events occur—to eliminate or reduce negative impacts on the project.

You may wish to begin this exercise with a brainstorming about potential risks to get candidate risks “on the table” for consideration. And then identify and refine that wording for risks that have some realistic chance of occurring in this stage. For example, potential weather problems present a real obstacle to completing field data collection by the planned completion date. It is also an issue that the project manager will ultimately have to plan for, as opposed to other issues such as a major disaster (e.g., your office burning down), is not a high-enough probability event that requires much time in planning. As described below, you will select several of the identified risks and carry out a risk analysis.

You will use the distilled list of risks to make a risk probability/impact matrix. The matrix will have at least three categories (high/medium/low) for probability and impact.

Remember that it is important to name risks effectively—use words that describe the risk event and point to the impact on the project (e.g., “injury of field technician disrupts data installation work”).

After completion of the risk matrix, document a risk analysis for the selected risks. This detailed documentation for that selected risk will include:

- a description of the risk and potential impacts (schedule, quality of work, cost, etc.) on the project.
- indicators or triggers that would be monitored to help identify the risk as early as possible.
- specific risk response strategies to take.

Using probability and impact matrix calculate the **Expected Monetary Value (EMV)** for all risks that have the impact in terms of cost \$\$.

Best of luck...

Risk Identification and Analysis

Introduction

A risk is a condition or an event that is uncertain, and that has either negative or positive implications of it does occur. In this paper I am going to discuss my project, building a bridge. I will tackle the project risks, come up with a risk probability matrix and carry out a risk analysis for the risks selected. I will further draft a risk management plan and identify risk management strategies. Finally, I will calculate the expected monetary value for all the risks.

Literature Review

In a given research project, the following project risks are anticipated; Potential adverse weather conditions pose obstacles on getting the materials and equipment to the site, and the process of data collection. These adverse conditions include heavy rains and subsequent floods. Lack of cooperation from the study population may lead to obtaining of poor or data that is inadequate, posing a threat to the overall findings of the study. Change in government policies and legal requirements may pose a threat to the resources and time limit set aside for the study. This may lead to overarching the budget and subsequent hitches in the budget, (Chapman 2003).

Insecurity in the study area may pose a threat to the resources allocated to the study. Raids and theft of the equipment set up for carrying out the study may extend the time frame set aside for the study.

Insufficient funds are a risk to the process of collecting data. Funds are required for the data collection staff, data analysis staff and for technical assistance. Resources, in form of money, are required as a form of incentives to the population under study so as to foster cooperation. Inadequacy of funds poses a threat to the process of collecting data and analyzing it. It also possesses a threat to the quality of data obtained. Risks arising from procurement like loss of procured materials following errors in paperwork during procurement, (Carbone & Tippet 2004). When the terms of the given contract are breeched, the deadlines that were supposed to be met are not, posing a risk to the schedule. Potential complications arising from technical errors and technology that is obsolete pose obstacles to the process of data collection and analysis.

The Probability/Impact Matrix table

Obsolete technology	Technological errors	Inadequacy of funds Change in government policies
Insecurity and theft of equipment	Insecurity and theft of equipment	Lack of skilled staff
Staff resistance	Adverse weather conditions	Lack of cooperation from study population

Methodology

Risk Analysis for the Selected Risks

The risks with the highest probability and impact are unfavorable government policies and inadequacy of funds. Government policies may change in the period before or even during the actual study. These include an increase in the fees levied on research projects or inception of a new legal requirement. These will interfere with the scope, schedule and the budget that had been put in place, (Carbone & Tippet 2004). Inadequate funds following poor budgeting also leads to lagging behind of the schedule and poor quality of work since the available resources need to be used sparingly.

Lack of skilled staff has a medium probability and a high impact. Hiring of staff that is not well skilled or trained risks the quality of work. This work cannot be compared to work done by well qualified and trained workers. It also risks lagging behind in the schedule as unskilled workers tend to be slower. Apart from speed, the errors made are numerous hence risking the quality of work.

Technical and technological errors are high probability but have medium impacts. Since it is human to make errors, even with skilled staff, some subtle errors go unnoticed and this will have a medium impact on the quality of output.

Insecurity and theft of equipment have medium probability of occurrence with medium impacts. Equipment to be used during the project may be raised or vandalized by the local community. This is a risk to schedule as replacement of the vandalized property may take a while. Also, it has implications on the budget since resources

allocated to something else in the project is diverted to replacing vandalized property, (Carbone & Tippet 2004).

Adverse weather conditions have low occurrence and medium impacts to the schedule of the project. Weather forecasts may mis-read the weather leading to bad weather that will pose a threat to the equipment used. It also has implications on the time frame, since more time will be required to maneuver the adverse conditions.

Staff resistance has a low probability and low impact on the schedule, and quality of work. However, it has a higher impact on the cost of the project as more funds will be required to recruit new staff, to train and equip them with the necessary skills and to orient them with the project.

Risk Management Plan

Description of risk	Indicator	Affected activity	Responsibility	Proposed strategy
Lack of skilled staff	Hiring individuals without experience	Data analysis and input	Human resource	Training of employees
Inadequacy of funds	Overstretching of the budget	Quality of work	The project manager and team leaders	Adhere to the budget and work plan
Poor cooperation from the study population	Inconsistent responses	Quality of work	The team leaders	Provide incentives

Unfavorable weather conditions	Unexpected conditions in the weather	The schedule and costs	The project manager and disaster management team	Disaster management training of the employees
Government polies	Skyrocketing legal fees	The schedule and scope	The project manager and the attorney	Update the schedule and follow it at par
Technological errors	Redundancy in data	The schedule, time and costs	The project manager	Avoid staff doing consecutive technical tasks
Insecurity and vandalism of property	Disappearance of equipment	The costs	Security enforcement team	Put on tighter security measures

Results and Discussion

Risk Management Strategies.

Ban staff from undertaking consecutive critical tasks without breaks in between to avoid technical risks. Draft a budget and adhere to it in order to avoid risks due to inadequate finances.

Draft a work plan or schedule and schedule the activities with the highest probability of risks first, (Cervone 2006). To avoid resource-related risks, foster teamwork among staff and identify ambiguity in the organization. Also, train staff on more efficient procedures and technology.

To mitigate scope risks, the schedule should be document and followed at par. All the operations should be sanctioned by the operations manager and in accordance

with the laid down scope. For other miscellaneous risks, have an attorney in place and disaster management experts.

Calculation of the Expected Monetary Value

EMV= Probability of the risk * Impact on the Risk

References

Chapman, C. (2003). *Project risk management*. John Wiley & Sons, Inc.

Carbone, T. A., & Tippet, D. D. (2004). Project risk management using the project risk FMEA. *Engineering management journal*, 16(4), 28-35.

Cervone, H. F. (2006). Project risk management. *OCLC Systems & Services: International digital library perspectives*.