



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

Student Name	عامر عبيد الدلحي	اسم الطالب
Students I.D	2021201942	الرقم الجامعي

Section

Master

Date

17 / 05 / 2021.

Course Code

(PMG510)

Project Risk Management

Risk Plan

GSM tower installation

Project Manger

Eng.Amer Aldalbahi

April 2021

V.01

1. Introduction

The risk management plan is "a component of the project, program, or portfolio management plan that describes how risk management activities will be structured and performed"(1).

In this document will provide the risk plan of GSM tower installation project and will describe the risks and potential impacts with response strategies.

The project will be installing a new GSM tower to increase GSM coverage on a highway road.

We will expect risks scenarios and evaluate the probability and Impact after that we select response plan for each risk with impact cost.

2. Literature review

In this section, we try to provide an idea about the risk management based on the literature review.

Risks can be both financial and non-financial and are associated with unknown events that may occur within the internal and external environment as a result of certain actions or inactions(Verbano & Venturini 2013).

The International Organization for Standardization (ISO 31000, 2009) has outlined a set of principles for risk management in organizations(Knight 2009; Short reed 2008) .

. In Australia and New Zealand the AS/NZS 4360:1999 has put forward an iterative process for managing risks which provides a framework to support better.

3. Methodology

We are using 5 steps to cover the risk plan on our project :

- Identify potential risks
- Evaluate and assess potential risks
- Assign ownership for each potential risk
- Create preemptive responses
- Continuously monitor risks

3.1 Identifying risks

Risk identification occurs at the beginning of the project, as well as throughout the project and during brainstorming with stakeholders we identify all the possible risks.

Table 1. List of Risks

No.	Risks
1	Failure of Soil test
2	Equipment delays on customs because COVID- 19 restrictions
3	Site acquisition
4	Labor productivity
5	Safety (incident)
6	Site access road
7	Delay payment of contract
8	Professionalism of integration engineers
9	Equipment theft

3.2 Risk Analysis

Impact and probability are the two main components of Risk analysis. Looking at impact versus probability is common to categorize and prioritize risks as some risks may have a severe impact on projects objectives but only happen on rare occasions, while other have a moderate impact but occur more frequently. (1)

Will assess the probability and Impact of each risk occurring and assign it a rating by using risk matrix and we have decided to use three distinct levels for risk: Low, Medium, and High.

Figure1. Risk Matrix

Probability	0.8-1	High	High	Medium
	0.4-0.79	High	Medium	Low
	0-0.39	Medium	Low	Low
		0.8-1	0.4-0.79	0-0.39
		Impact		

Table 2. Risks Probability and Impact

No.	Risks	Probability	Impact
1	Failure of Soil test	0.4	0.7
2	Equipment delays on customs because COVID- 19 restrictions	0.9	0.8
3	Site acquisition	0.8	0.4
4	Labor productivity	0.3	0.2
5	Safety (incident)	0.2	0.3
6	Site access road	0.4	0.2
7	Delay payment of contract	0.2	0.3
8	Professionalism of integration engineers	0.5	0.6
9	Equipment theft	0.9	0.8

Then the severity calculated and evaluated and select the best response plans for each risk and try to mitigate the impact, also we assign risk owner to track the risks.

Table 3. Risk Register

No.	Risks	Probability	Impact	Severity	Owner	Response plan	Mitigate Action
1	Failure of Soil test	0.4	0.7	Medium	Project Manager	Change the location	Will do a new soil test
2	Equipment delays on customs because COVID- 19 restrictions	0.9	0.8	High	logistics department	Escalate the issue to the client to understand the situation	Execute the tasks which not dependent on equipment
3	Site acquisition delay	0.8	0.4	High	Project Manager /Sponsor	Follow up with the client to receive the land ASAP.	Increase resources during civil work
4	Labor productivity	0.3	0.2	Low	Project Manager	Add professional labor	Tracking tasks daily
5	Safety (incident)	0.2	0.3	Low	Project Manager	apply safety procedure	Training
6	Site access	0.4	0.2	Low	Project Manager	Open access road to the site	Use temporary access

7	Delay the payments to the vendor	0.2	0.3	Low	Finance department	Follow up with finance department to accelerate the payments	Identify clear payment process
8	Professionalism of integration engineers	0.5	0.6	Medium	Technical department	Review the result and identify the reasons	Support the team with consultant
9	Equipment theft	0.9	0.8	High	Project Manager	Damage assessment rework. and	Provide high security around the site until handover the site to the client

3.3 Expected monetary value (EMV)

Expected monetary value (EMV) analysis is a statistical concept that calculates the average outcome when the future includes scenarios that may or may not happen Table 4.

EMV relies on two basic numbers.

- P—the probability that the risk will occur
- I—the impact to project if the risk occurs

The risk contingency calculated by multiplying the probability by the impact (2).

Table 4. Expected monetary value (EMV)

No.	Risks	Probability	Impact cost (SR)	Risk contingency (SR)
1	Failure of Soil test	0.4	3000	1200
2	Equipment delays on customs because COVID- 19 restrictions	0.9	15000	13500
3	Site acquisition	0.8	2000	1600
4	Labor productivity	0.3	1500	450
5	Safety (incident)	0.2	1000	200
6	Site access road	0.4	2500	1000
7	Delay payment of contract	0.2	500	100
8	Professionalism of integration engineers	0.5	2000	1000
9	Equipment theft	0.9	4000	3600
	TOTAL		31500	22650

4. Result and Discussion

Table 4. Showing how much money we could expect to cover the risk during GSM tower installation also the cost impact if the risks happened, the risk contingency will be equal 22,650 SR and will be added it in the budget during planning.

5. References

- Paul Hopkin, Fundamental of risk management 5th edition.
- Akram, PMG510, Project Risk Management (2021) , Everyone's Smart University.
- Curtis, P. & Carey, M. (2012) Risk Assessment in Practice. Deloitte & Touche LLP
- PMBOK® Guide – Sixth Edition, Page 721.
- https://www.researchgate.net/publication/345843484_Enterprise_Risk_Management_A_Literature_Review_and_Agenda_for_Future_Research
- https://www.academia.edu/19156751/Literature_Review_Risk_management_in_organisational_analysis_including_Taleb's_antifragility_model