



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

Student Name	Hussein Murtadha Ali Alsaggaf	اسم الطالب
Students I.D	2021200809	الرقم الجامعي

Section

Master

Date

Thursday

18 / 03 / 2021.

Course Code

(PMG510)

Project Risk Management

PROJECT RISK MANAGEMENT

Introduction:

Project description:

In my project, I'll be creating an app-based time clock for contractors who work in several locations. For example, a cleaning firm can have no real means of knowing where its workers are or how many hours they work each week. In this app, you can be sure you're accounting for the hours you've been told you owe. This software will be developed using a waterfall project management system. This is because, despite the fact that there are several steps to this phase, I know precisely where I should be at all times. This app must go live by a certain date, and I am aware that there will be a trial time. Using the waterfall process, I have the schedule written down in advance and it will be carried out in a sequential manner, limiting the timetable and allowing for adjustments to the plan.

Method/Strategy for Risk Management:

My risks will be divided into three groups, which I will handle. I'll use the terms low, medium, and critical. Identifying each risk will reveal whether it is internal or external, as well as whether it is negative or beneficial. I'll figure out how much chance there is, and then see how it affects the budget and other services available. Once all risks have been classified and all decisions have been taken, I will implement the established strategy to mitigate the risks if they are discovered to be unavoidable.

Risk Categories:

As an application, I consider the technological and internal risks are the main categories I will face, because the software is used internally by employees.

Project Risks Identification:

Identifying Risks:

Risk Category	Risk description	Impact on project
Budget	This is an estimation of the project's cost within a specified time period.	A few of the problems that could lead to a budget overrun on my project.
Software Defects	Issues of technology	Some problems could make the app unusable and worthless, leaving the consumer where they were prior to investing in development.
Data Backup Storage	The amount of disk space used to adequately back up all data for a specified period of time.	If the storage specifications aren't met, the app cannot run properly. Additionally, if an IRS audit occurs, monetary penalties will be imposed for failing to maintain correct records if evidence is not kept.
Human Error	Employees are expected to use software correctly to log hours spent at each site.	If they are using the app to claim that they were in a certain area for a longer period of time than they really were, this may save them more money.
Training Liability	Employees would be taken away from their regular jobs at this period to master the latest apps.	If the project is not finished in the allotted period, the cost will rise and the project's budget will be exceeded.

Methodology:

Risk Matrix:

Probability:	0-1	Low
	2-3	Medium
	4-5	Critical

Impact	0-1	Minor
	2-3	Moderate
	4-5	Major

The Risk Matrix is a commonly used method in the field for assessing and analyzing risks. Risk Matrix's are widely used in risk-management contexts and have been applied across the field. A Risk Matrix is a graphical representation of the probability, of a given outcome and the resulting consequences if it occurs. The RM's main objective is to emphasize uncertainties and risk-mitigation measures (Thomas, P., Bratvold, R. B., & Eric Bickel, J. 2014).

Qualitative and Quantitative Risk Analysis:

I'm going to categorize all of the risks using the qualitative and quantitative risk analysis table. The categories will range from 0-1, or low risk, to 4-5, which would be critical. This will enable me to identify which risks I should concentrate on resolving (Raghunath, K. M., Devi, S. L., & Patro, C. S. 2017).

Qualitative Risk Analysis		
Risk	Occurrence Probability	Potential Impact
Budget	2	Miscalculation of resources rendered and excessive investment, depending on the financials of the company budget for the

		project, may contribute to the project's downfall and eventual failure.
Software Defects	4	It's possible that there are bugs that won't pop up until the app is released. In order for the app to be useful, these must be addressed as soon as they are discovered.
Data Storage Backup	4	Without adequate storage and assurance that space will not be a problem, the customer will decide to abandon the project entirely. The app's aim is to make it easier, but if they still have to hold paper notes manually, it's pointless.
Human Error	1	Another risk that cannot be totally eliminated. Humans make mistakes, and as we progress, we will learn the most frequent ones so that automated upgrades can provide obstacles to avoid these errors.
Training Liability	3	This is an unavoidable risk that all employees must be trained on how to use the

		new app. It would be worthless to others, if not the majority, without adequate preparation.
--	--	--

Quantitative Risk Analysis		
Risk	Occurrence Probability	Potential Impact
Budget	2	When we get into a budget risk, it might take 3-5 days to completely rebuild the budget and come up with a plan to recover the lost funds. Budget reduction could be necessary as a result of this.
Software Defects	4	Software backups can take anything from a few days to months. Since each defect is unique, there is no way to predict how long a delay in this region would last. That could be anywhere from a few thousand dollars to hundreds of thousands of dollars on the line.
Data Storage Backup	4	We may run into problems with data backup and storage that require 1 to 2

		weeks to resolve. If we run into these issues, hardware will need to be bought so that space can be set aside for the apps' backup.
Human Error	1	Human errors can create problems every day if anyone doesn't record their time properly which could cost thousands of dollars. This depends on how long the mistake goes back in time.
Training Liability	3	The responsibility for training will rely heavily on the number of staff in the company. I will predict 2-3 days per worker for school, which is likely to translate to about \$150 a day in salaries and any company lost as a result of workforce scarcity.

Communication Matrix:

The Communication Matrix is an evaluation method with strong empirical and psychological origins to help projects with difficulty in communication find a way to communicate themselves. It identifies the existing level of cooperation of a project and provides a basis for future goals (Rowland, C. 2012).

Communication Matrix			
Stakeholders	Risk content	Method	Frequency
Team Members and Project Affiliates	The project team's introduction and overall analysis of the goals. The content of risks must include all identified risks at the outset.	In person meeting with presentation.	Once when the project was initiated.

Project Risk Mitigation and Response strategy:

A project could face a variety of risks, each of which will necessitate a separate approach to mitigate. Estimates or predictions built into the budget, for example, have the potential to be incorrect. There is a risk that can be both positive and negative (Spacey J. 2015). If we come in under budget, that's a plus because that means we'll have more money to spend elsewhere. If we go over budget, it's a problem that we'll have to fix. If staying under budget is the remedy, we must look at areas in the project where we can cut costs and work from there.

Project Risk Mitigation and Response strategy		
Risk	Risk response strategy	Description of risk response
Budget	Mitigate	Examine the whole project to see if changes can be made to alleviate the budgeting issue.
Software Defects	Mitigate	Give the consumer a BETA edition to check out and ask them to report any problems.

		This is a disadvantage because if it fails, you will be unprofessional, and the contract will be terminated.
Data Storage Backup	Avoid	Ascertain that we have enough hard disc space to save all of the app's purchases for the required period of time. Should simply prepare for more space than is needed.
Human Error	Accept and possibly avoid	Since people commit mistakes, this is something we should truly prevent. Installing barriers in the app to reduce the error rate will help to prevent any of these errors.
Training Liability	Mitigate	Working with both management and hourly to devise a training strategy that is both cost-effective and does not adversely affect the risk.

Discussion:

We would see the outcome of the risk mitigation strategy and how to reduce the risk. It's important to remember that we should be mindful of all risks, but we shouldn't spend time on those with a green colour; instead, we should concentrate on those with a yellow or red colour because they have a higher probability and a greater impact. The outcome of the cost of the budget uncertainties were seen. The higher percentage was for software

defects and data backup storage, since both were high prioritized. There are certain risks that we should be aware of, such as selecting the incorrect training form. This would be a waste of our investments.

References:

Project Management Institute. (2013). *A guide to the project management body of knowledge: PMBOK guide*. Project Management Inst.

Raghunath, K. M., Devi, S. L., & Patro, C. S. (2017). An empirical take on qualitative and quantitative risk factors. *International Journal of Risk and Contingency Management*, 6(4), 1-15. <https://doi.org/10.4018/ijrcm.2017100101>

Rowland, C. (2012). *Communication Matrix: Description, Research Basis and Data*. Communication Matrix. <https://communicationmatrix.org/Uploads/Pdfs/CommunicationMatrixDataandResearchBasis.pdf>

Spacey J. (2015). *What is budget risk?* Simplicable. <https://simplicable.com/new/budget-risk>

Thomas, P., Bratvold, R. B., & Eric Bickel, J. (2014). The risk of using risk matrices. *SPE Economics & Management*, 6(02), 56-66. <https://doi.org/10.2118/166269-pa>

Appendix:

