



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY



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Everyone's Smart University

Project (Spring 2021)

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Section

Master

Date

Monday

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Course Code

(PMG510)

Project Risk Management

Instructions:

- اخر موعد للتسليم هو يوم السبت 2021-05-08 في تمام الساعة 9 مساءً.
- الإجابة متاحة باللغة الإنجليزية أو اللغة العربية مع مراعاة أن تكون المصطلحات العلمية باللغة الانجليزية.
- يتم تسليم المشروع في صيغة ملف pdf مع الالتزام نموذج الجامعة ولن تقبل أي مستندات أخرى.
- يجب مراعاة أقسام البحث الرئيسية (مقدمة Introduction، دراسات علمية سابقة Literature Review، طريقة البحث Methodology، النتائج والمناقشة Results and Discussion، وأخيراً المراجع References . وان كان هناك ملحقات Appendices يتم إضافتها)
- يجب الالتزام بـ Theme موحد كما يلي:
- حجم الخط 12.
- نوع الخط Arial.
- لون الخط أسود.
- المسافة بين الأسطر line spacing 1.5
- عدد صفحات البحث (لا يقل عن ثلاث صفحات ولا يزيد عن ست صفحات).

Instructor's Name: Eng. Mosaab M. Hamed

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...

المشروع:

التعرف على المخاطر وتحليلها (بحث مبني على مشروعك الذي اخترته في مادة ادارة المشاريع المتقدمة)

الغرض من هذا التقرير هو التعرف على المخاطر المحيطة بالمرحلة التي تختارها المرحلة من مراحل مشروعك (نفس المرحلة التي اخترت التطرق لها في مشروعك لمادة إدارة المشاريع المتقدمة Advanced project management) حيث أن مهمتك هي تحضير خطة متكاملة لإدارة المخاطر تشمل التعريف بالمخاطر المحتملة التي تحيط بتلك المرحلة وتحضير مصفوفة احتمالية المخاطر ومن ثم القيام بالتحليل لهذه المخاطر المختارة وتحديد استراتيجيات إدارة المخاطر المناسبة لكل خطر على حدة.

من محتويات المقرر والمصادر الأخرى المتاحة أصبحت تعلم الآن أن الغرض العام لمرحلة التخطيط للمخاطر هي توقع أحداث المخاطر المحتملة والتجهز لاتخاذ ردة الفعل المناسبة عند وقوع الخطر – لمنع أو تقليل الآثار السلبية على المشروع.

قد تحبّذ بداية هذا البحث بعصف ذهني عن ماهية المخاطر التي قد تحيط بتلك المرحلة من مراحل مشروعك, وذلك للحصول على قائمة بتلك المخاطر. ومن ثمّ تحديد وتصنيف هذه القائمة للوصول إلى قائمة مختصرة بالمخاطر التي لها فرصة واقعية أكبر في الحدوث. على سبيل المثال: المشاكل الجوية المتوقعة والتي تمثل عقبة حقيقية أمام اكتمال جمع البيانات من المواقع في أو قبل الوقت المحدد، هذه تعتبر مشكلة على مدير المشاريع أن يضعها في الحسبان. من ناحية أخرى، فإن المخاطر غير الواقعية مثل الكوارث الطبيعية والأعاصير (تلك التي تسبب حريقاً بمكتبك وفقدان الأوراق المهمة) ليست لها احتمالية وقوع عالية وبالتالي لاتستدعي تضییع الكثير من الوقت في التخطيط لها. كما سيتبين لك، ستقوم باختيار عدة مخاطر من تلك التي قمت بالتعرف عليها لتحليلها.

ستقوم باستخدام هذه القائمة المختصرة لعمل مصفوفة المخاطر (الاحتمالية/الأثر). المصفوفة ستحتوي على الأقل على ثلاث تصنيفات (عالي/متوسط/منخفض) للإحتمالية والأثر.

لاتنس استخدام أسماء تصف طبيعة المخاطر بصورة فعالة – قم باستخدام كلمات تصف الحادثة الخطرة وتشير الى أثرها على المشروع (مثل: إصابة أحد الفنيين في الموقع مما يؤثر على أعمال التركيب).

بعد انتهاءك من مصفوفة المخاطر، قم بتوثيق تحليلك للمخاطر المختارة. هذا التسجيل المفصل للمخاطر يجب أن يتضمن:

- وصف للخطر واثاره المحتملة (الجدولة، جودة العمل، التكلفة، الخ)
- المؤشرات والمحفزات التي يجب مراقبتها للمساعدة في التعرف على هذا الخطر قبل وقوعه
- تفصيل للاستجابة المقترحة للتصدي لهذا الخطر

باستخدام مصفوفة الاحتمالات والتأثير ، احسب القيمة النقدية المتوقعة (EMV) لجميع المخاطر التي لها تأثير من حيث التكلفة \$\$.

مع تمنياتي بالتوفيق..

Risk Identification and Analysis of Communication and Implementation of GPS System

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SECTION 1: INTRODUCTION

In SAMARATEC organization, as the management decided to make a transformational change of lowering the accidents rate and monitoring drivers' attitude, implementing GPS tracking system was the solution to solve this problem. This project has been assigned to me as a project manager to set the bases and take this project from initiation to the execution phase to go life. Creating the vision, building the team, communicating and coordinating with team members and the supplier as a third-party and reporting to top management are all in my responsibility scope.

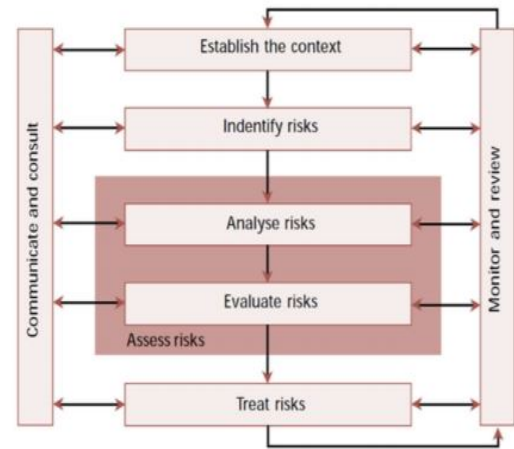
Many people assume that a group's or project's success or failure is ultimately determined by the manager's communication effectiveness. Since the project is in the planning phase, the objective of this report is to identify project risk of communication and implementation of GPS tracking system, analyze identified risks, describe their potential impact on the project and specify the appropriate response strategy for each risk. To examine how far effective implementation of risk management plan could enhance the success of the project by delivering it on time, within the budget and meeting the objectives. The aim of this project is to implement GPS tracking system in 3 months.

SECTION 2: LITRETURE REVIEW AND CONCEPTUAL FRAMEWORK

In general, risk is identified as the chance of something happening that may have positive or negative impact upon objectives and can be measured in terms of consequences and likelihood. Risk combines both the uncertainty of outcomes and the utility or benefit of outcomes (Thomas, 2011). Risk and risk management are of paramount importance to all organizations. They became fully aware that risk management brings benefits. By taking proactive approach organization will be able to improve their operations to become more efficient, process to be more effective and strategies to be more efficacious by analyzing the risk associated with every strategy to reach better strategic decisions.

Risk management can assist organizations to manage their core processes more effectively by ensuring that key dependencies are properly analyzed, monitored, controlled and reviewed. Risk management tools and techniques will assist with the management of the hazard risks, control risks and opportunity risks that could impact these key dependencies (Paul, 2010).

The following figure provides an overview of the risk management process which is based upon two enabling activities (communicate and consult, and monitor and review), and five major activities: establish the context, identify risks, analyze risks, evaluate risks and treat risks. (Robertson, Kean and Moore, 2006).



After identifying the risks, analyzing and defining the response type for each risk (Transfer, Terminate, Tolerate or Treat). The information has to be stored in a well-constructed and dynamic risk register which has to be available on the intranet of the organization to help for a better understanding and communication.

SECTION 3: METHODOLOGY

A qualitative research approach was the method adopted in this report. Brainstorming sessions have been conducted with the team members to list all potential risks that may confront project implementation and communication. The following step after identifying all possible risk, analyzing the probability and the impact is essential to determine the severity of each risk in the risk matrix.

3.1 RISK MATRIX

Probability	0.7 – 1	Medium	High	Very High
	0.3 – 0.69	Low	Medium	High
	0 – 0.29	Very Low	Low	Medium
		0 – 0.29	0.3 – 0.69	0.7 – 1
		Impact		

	List of Risk	PROPABILITY	IMPACT	SEVERITY
1	Project schedule is not clearly defined or understood	0.2	0.7	Medium
2	Consultant or contractor delays	0.4	0.8	High
3	Theft of devices and equipment	0.2	0.8	Medium
4	Extreme weather	0.1	0.3	Low
5	Privacy / identity management and information security	0.5	0.6	Medium
6	The quality and availability of requested devices	0.3	0.7	High
7	Lack of training and knowledge transformation	0.2	0.8	Medium
8	Rapid technology changes	0.4	0.7	High

3.2 RISK IMPACT, TRIGGER AND RESPONSE STRATEGIES

After completion of the risk matrix, it is essential to describe the potential impacts of each risk on the project. Identify the indicators or triggers to help recognizing the risk as early as possible and specifying risk response strategies to be taken.

	List of Risk	Trigger	Response	Impact	Contingency Plan	Owner
1	Project schedule is not clearly defined or understood	- Inability to complete assigned tasks and providing requested reports.	- Revise the schedule with the project team. - Relaunch the schedule.	- Delay in project schedule.	- Conduct scheduling meeting with the project team to understand the plan and goal of project. - Share the schedule and go through upcoming tasks at each project progress meeting. - Follow of project plan.	Project Manager
2	Consultant or contractor delays	- Unattended Scheduled meetings. - Lack of progressing commitment.	- Escalate to project sponsor and contract manager. - Implement late clauses.	- Delay in project schedule. - Increase project cost.	- Include late penalties in contracts. - Communicate schedule early.	Project Manager
3	Theft or damages of devices and equipment	- Unreceived GPS tracking signal.	- Start internal investigations. - Inform legal department.	- Increase project cost. - Disturb of daily operations.	- Follow security procedures. - Verify all physical security measures in place.	Project Coordinator
4	Extreme weather	- Weather changing.	- Notify drivers to turn off GPS devices.	- Safe lives and assets. - Keep project on track.	- Familiarize drivers with emergency procedures.	Project Coordinator

5	Privacy / identity management and information security	- Denied database access.	- Antivirus and restrict the access.	- lose of confidential information.	- Enhance data protection for the software and database. - Put back up system in place.	Project Coordinator & IT Team
6	Poor quality and lack of availability of requested devices	- Unavailability of requested items.	- Contact potential suppliers.	- Delay of project schedule.	- Prepare a list of suppliers to provide requested items.	Project Manager
7	Lack of training and knowledge transformation	- Installation problems.	- Appointing technically perfect and experience engineers for the work.	- Delay in implementation schedule. - Increasing project cost.	- Schedule regular training sessions with the provider to train the team.	Project Manager
8	Rapid technology changes	- Add new features and enhance the service quality.	- Conduct consultation meeting with IT team and service provider.	- Enhance overall performance and quality of service provided. - Increase project cost.	- Detailed study of required system and proper selection of software that has flexibility to adopt changes in later stages.	Project Manager, IT Team & consultant.

3.3 EXPECTED MONETARY VALUE (EMV)

Calculating the Expected Monetary Value (EMV) by multiplying the Probability by the Impact. This technique is used to estimate the contingency budget to cover the impact on the project.

	List of Risk	P (RISK PROPABILITY)	I (COST IMPACT)	P*I (RISK CONTINGENCY)
1	Project schedule is not clearly defined or understood	0.2	1,500	300
2	Consultant or contractor delays	0.4	5,000	2000
3	Theft of devices and equipment	0.2	9,000	1800
4	Extreme weather	0.1	100	10
5	Privacy / identity management and information security	0.5	2,000	1000
6	The quality and availability of requested devices	0.3	4,000	1200
7	Lack of training and knowledge transformation	0.2	2,500	500
8	Rapid technology changes	0.4	1,800	720
Total			25,900	7,530

The main goal of calculating risk contingency budget is to reflect the potential impact of the risk along with the likelihood for the risk that may occur. As noticed, the total contingency request for this project is **\$7,530** which could be added to the budget as risk contingency.

