



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

Student Name	حمد بن حميدان السحيم Hamad Humidan AlSuhaim	اسم الطالب
Students I.D	2021202257	الرقم الجامعي

Section

Master

Date

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Course Code

(PMG510)

Project Risk Management

Instructions:

- اخر موعد للتسليم هو يوم السبت 2021-05-08 في تمام الساعة ٩ 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 1.5 line spacing
- 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 ادارة المخاطر المناسبة لكل خطر على حدة.

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

قد تحبذ بداية هذا البحث بعصف ذهني عن ماهية المخاطر التي قد تحيط بتلك المرحلة من مراحل مشروعك, وذلك للحصول على قائمة بتلك المخاطر. ومن ثم تحديد وتصفية 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 تضيق 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 management is considered as the process in which possible risks to the project are identified, assessed and controlled in order to sustain the operations. Risks can have various sources from which it can occur, and some of them include uncertainties in financial operations, errors in strategic management, legal liabilities, natural disasters and accidents. In risk management processes there are five different processes that are identification, assessment, mitigation or controlling, monitoring and reporting of risk.

Risk identification

This is the first process of risk management is risk identification. All the events are evaluated that could have negative impact the project and its operations as well. Time period is selected when the risk would happen and it can be over days, couple of weeks etc. In the risk management for project legally updated compliances laws needs to be prepared and managed as well. Risk events that have happened in the past are examined with their cause.

Risk assessment

When there is an identification of risk and their probability then it is time for assessing the likelihood of these events and their relevant impact on the project. Risk matrix I created for this purpose that encompasses both likelihood of happening of risk and negative impact on the project.

Mitigation of risk

In this step or process multiple procedures are adopted and implemented in order to reduce and eliminate the likelihood of risks. There cannot be a perfect plan to end the risk but mitigation changes are important as they can assist in reducing the risk and its impact.

Risk monitoring

When the risk is identified, assessed and there is a mitigation plan for the risk then implementation of risk plan is then monitored in order to check the effectiveness of the developed along with the occurrence of risk events. Monitoring of risk mitigation plan should be performed throughout the implementation of risk mitigation plan.

Risk reporting

This is the last step in which progress of risk management plan is recorded in documented form for the future used. It assists in engaging the stakeholders of the project regarding risks and progress of risk mitigation plan as well.

Potential risks

We will be analyzing potential risk that could encounter in our project

Cost risks

In the project this risk has more likelihood to occur and it is the great risk for the project and its finances. Leading a quality and effective project by staying under the budget is a difficult task and project managers have to make suitable profit as well.

Technological risk

Technological risk is another risk as technology can be confusing and frustrating sometime. Studies have declared that technological and IT related projects are 3 percent successful.

Labor shortage

Shortage of labor is another potential risk for the project and it directly affects the productivity of the project. Schedules of the projects would be prolonged if there will be no proper manpower or labor workforce. Project delivery is delayed in this manner. Not for this our project but for every project shortage of labor is a critical risk.

Health and safety hazards

Ensuring the safety of labor or working staff is the responsibility of the project manager. Site conditions are not certain and can change rapidly. There can be serious injuries as a result of hazard.

Communication risk

Communication plays an important role in the success of the project. Effective communication results in easy and operative conveying of message. However in a project there can be communication risk which can hinder the success of project. There can be no communication between labors which could result in lack of confidence and not sufficient transferring of information and ultimately the project is affected.

Risk matrix

		Impact		
Probability		High	Medium	Low
	High	Technological Labor shortage		
	Medium		Financial cost and communication	Natural hazard
	Low			

Impact of risks and response

We will analyze the impact of risks.

Impact and response of cost risk

Cost risk can lead to the performance risk. From cost risk different other risks are generated including performance risk, scheduling risk, quality risk etc. all the schedule of the project will be prolonged because of the impact of cost risk that is caused by the mismanagement of funds. There should be proper management of cost and there should be separate qualified and experienced finance manager for the project which lead all record in digital safe form and provide other effective services as well.

Impact and response of technological risk

In project technological risk can impact the whole project. Today's world is a modern world in which technology his being preferred over traditional operations. If the workers and managers are now aware of the technology and are not compatible with the technology, then project fails. If technology Information technology is implemented there are security risks, cyber-attacks risks, outage of services etc. it could result in the theft of the critical information of the project. There should be proper training given to the labors and workers regarding the adoption of technology. Cyber security system should be developed for secured project operations.

Impact and response of labor shortage

Impact of labor shortage includes the delay in the delivery of project, poor quality. It results in higher cost of operations for additional time and efficiency of overall project is affected. As a response of labor shortage there should be development of community partnerships. Managers should think out of the box and provide faire wages along with benefits.

Impact and response of Health and safety hazard

Health and safety hazards impacts in the form of injury of the workers and staff which in turns affect the performance of the project. There should be proper use of safety kits and safety instruments for safety.

Impact and response of communication risk

The impact of communication response comes with the complexity of interaction between the audience and the message being conveyed. There should be consistency of focus, everyone should listen to everyone. There should be recognition and positivity.

Reference

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Chapman, C., & Ward, S. (1996). Project risk management: processes, techniques and insights. John Wiley.

Fang, C., & Marle, F. (2013). Dealing with project complexity by matrix-based propagation modelling for project risk analysis. Journal of Engineering Design, 24(4), 239-256.