



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

Student Name	Naif Fawaz Arab	نايف فواز عرب	اسم الطالب
Students I.D	2021203512		الرقم الجامعي

Section

Master

Date

Thursday

18 / 03 / 2021.

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 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 ادارة 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 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 Identification and Analysis

INTRODUCTION

There are several possible ways to perform the risk and loss detection procedure. No one solution is ideally suited to the needs of all users, and public bodies should modify or build their own approaches.

The most common system used for identifying danger is the interpretation of risk as a hazard. In this case, risk management means the installation of control mechanisms which would reduce both the probability of adverse outcomes and their magnitude (the financial loss that would be involved for the entrepreneur). It is a defense focus; its objective is to devote capital to reduce the chance of detrimental effects.

From risk perception as an incentive, risk control means using strategies that optimize outcomes and limit potential loss or costs. The emphasis in nature is offensive.

Risk assessment from a risk as complexity perspective aims to minimize the divergence between the outcomes in entrepreneur wants to achieve and those which he or she ultimately achieves.

LITERATURE REVIEW AND FRAMEWORK:

Risk management:

Effective risk control, as it affects both organization and development stream, is central to the progress of modernization in national statistical organizations (NSO). In fact, risk management, in its selection of targets, points to a strengthening of the organization's governance as a whole, on the one hand, and to the finding, analysis, and removal of the incertitude that can hinder progress and growth on the other.

Tools used in managing risk in projects:

A variety of well-developed risk management methods and strategies in projects are available here. Different tools and approaches for project management into five (5)

classes, according to the risk management phase phases. The five groups are processes for determination (including tools and techniques such as checklist, brainstorm, etc.) and process analysis (including risk probability assessment and assessment tools and techniques), process planning and planning (including the assignment of responsibilities, analysis of costs and benefits, cause-effect analysis etc.), (with tools and techniques including analysis of trends, project re-planning, etc.), and history (management of requirements methods and procedures, prototyping, testing etc.). The norm AS/NZS 4360:2004 reported such risk-identification tools and strategies such as check listing, brainstorming, flow-charting, record-based evaluation, scenario analysis and device engineering. Further information sources for risk assessments are included in the standard:

1. Experiment and prototypes
2. Expert judgment and specialist
3. Relevant literature survey

Strategies of risk management and evaluation:

Risk handling strategies—risk handling processes. Traditional risk-management strategies include risk-retention, contract or non-policy risk transfers, risk management, risk avoidance and insurance conversion. The financial instruments, including hedges, swaps and futures, also provide for other uncertainties (e.g. credit, operating risk or rate risk).

Thorough risk management performance is a broad process which varies with the needs and requirements of each organization. The first step is to decide precisely what your company faces in order to identify the likely and possible effect of injuries. Upon completion of this phase, the technology most suited to your market can be evaluated and the risk assessment success can be optimized.

Plan Risk Control Technology Dimensions:

Without much variation, risk professionals start with a risk assessment. The risks stem from qualitative or quantitative assessment that helps coordinate threats in order to

achieve their goals. Consequently, the first component of risk is data — or data created about the threats a company has to face.

The second risk aspect is to determine which actions should be done or stopped on the basis of the results during the first process. Many management managers have created this process to mitigate the effect of risk events on their organisation, and various people have developed incredibly complicated approaches. Again there are so many different ones, but I'm sure you've got success stories explaining a technological or organizational problem.

METHODOLOGY:

Risks and their effects:

Effect of risks	the potential risks
It comes with a great deal of disruption due to delays in shipping, a disparity in quality of production or issues with the amount of materials.	The chance of non-existent rare metals.
Because the condition of suppliers and their non-compliance with the requirements varies considerably, they are then discarded and the raw materials are re-supplied in order to fulfill the necessary specifications.	Risk related to content that is not complying.
If these approvals are not obtained in good time, the start-up date of the project will be delayed, affecting the project program adversely and delaying the entire project time.	Allowances
the risk that the contractor does not comply with the requirements for the project production.	Risks in design

Possible threats matrix:

Opportunities	SEVERITY					
	Nil	Low	Moderate	High	Very High	
The chance of non-existent rare metals.	Risk acceptable	Review at appropriate time	High priority	Operation not permissible	Operation not permissible	Almost Certain
Risk related to content that is not complying..	Risk acceptable	Review at appropriate time	High priority	Operation not permissible	Operation not permissible	Likely
Allowances	Risk acceptable	Risk acceptable	Review at appropriate time	High priority	High priority	Possible
Risks in design	Risk acceptable	Risk acceptable	Risk acceptable	Risk acceptable	Risk acceptable	Rarely

Task table:

Risks	Score
High	18-25
warning	11-16
Medium	6-9
Low	1-5

RESULTS AND DISCUSSION:

The design of the framework has a host of benefits. From a declaratory point of view, it contributes to improved project understanding and use of resources, fosters creation and the realization of the outer circumference and promotes greater use of approaches to define and evaluate risk that have an intrinsically positive effect on eventuality evaluation.

REFERENCES

- Hopkin, P. (2018). Fundamentals of risk management: understanding, evaluating and implementing effective risk management. Kogan Page Publishers.
- Aven, T. (2016). Risk assessment and risk management: Review of recent advances on their foundation. European Journal of Operational Research, 253(1), 1-13.
- Kendrick, T. (2015). Identifying and managing project risk: essential tools for failure-proofing your project. Amacom.
- Haider, H., Ghumman, A. R., Al-Salamah, I. S., Ghazaw, Y., & Abdel-Maguid, R. H. (2019). Sustainability evaluation of rainwater harvesting-based flood risk management strategies: a multilevel decision-making

framework for arid environments. Arabian Journal for Science and Engineering, 44(10), 8465-8488.