



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

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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 الان أن الغرض العام لمرحلة التخطيط للمخاطر هي توقع أحداث المخاطر المحتملة والتجهز لاتخاذ ردّة 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 باختبار 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..

Project 1 RM

Introduction

Risk can be defined as uncertain event or condition that, if it occurs, has a positive or negative effect. Risk management is the organizational policies for optimizing investments and reduce risks to minimize the possibility of failure. Risk management not only helps in avoiding crisis situations but also aids in remembering and learning from past mistakes. This improves the chance of successful project completion and reduces the consequences of those risks. Risk management is becoming the most challenging aspect of managing projects. While we can never predict the future with certainty, we can apply a simple and streamlined risk management process to predict the uncertainties in the projects and minimize the occurrence or impact of these uncertainties. This research will discuss the types of risks, processes for risk management and the techniques for risk management in implementing new system at Gulf International Bank.

1.0 Types of risks

1- Scope Risks:

The objective and the requirements of the project must clear, to achieve proper planning. Project manager must set a clear project charter that is signed off by the stakeholders and then start to set more detailed tasks and assign responsibilities.

2- Cost Risks:

Cost risk includes the different costs associated with a project (labor, materials, equipment, administration). This type of risk is the most common as it shows the biggest threat to businesses and their financials. Staying within budget is crucial for business owners to make a sufficient profit.

3- Time Risks:

Time is the prime resource available to keep the event on schedule. Poor planning can cause time and scheduling risk, as project tasks take more time than the estimated to be completed. Time risk often increase cost risk as it slows down the project benefit.

4- Technology Risks:

Technical risks could include security threats, system failure or poor performance. These risks can increase maintenance time and cost and there for delay the project and increase its cost.

5- Resource Risks:

having the right team makes it easier to meet the project objectives. All team members identify and handle risks in different levels.

6- Communication Risks:

The project manager is responsible for ensuring effective communication amongst the team and ensuring real, two-way communication between the project team and the customer. This can be achieved

by various ways like emails, meetings, also project manager must document and keep track of all the communications

7- Miscellaneous Risks:

There are many different things that could happen through the pipeline of any project conducted. Whether that be natural disasters or legal risks, extra precautions must be taken when planning the disaster recovery plan

2.0 Literature Review

In banking and business environments there is understandable pressure to improve the quality of decision making at all levels in the organization. Several techniques have been developed to address this concern, two of the leading approaches are Earned Value Management (EVM) and Risk Management (RM). EVM is involves mathematical calculations that involves probability and impact. RM technique is qualitative process for decision-making it assists in identifying, assessing, and controlling risks to make informed decisions that balance risk costs against mission benefits.

2.1 Methodology

Expected Monetary Value (EMV)

This is a statistical technique in risk management used to quantify risks and calculate the contingency reserve. It calculates the average outcome of all future events that may or may not happen.

- 1- Probability: Probability is the likelihood that any event will occur.
- 2- Impact: The impact is the amount that you will spend if any identified risk occurs.

Expected Monetary Value (EMV) = Probability * Impact

Risk Management (RM)

Risk management is the practice of identifying, evaluating, and preventing or mitigating risks to a project that have the potential to impact the desired outcomes. It is a key project management practice to ensure that the least number of surprises occur during the life of the project.

1-Risk Identification

Risks are to be identified and dealt with as early as possible in the project. Risk identification is done throughout the project life cycle, with special emphasis during the key milestones.

2-Risk Analysis

Once the risks are identified, they are analyzed to identify the qualitative and quantitative impact of the risk on the project so that appropriate steps can be taken to mitigate them.

3-Risk Response Planning

For each risk there must be a response plan. Risk response plans are aimed to eliminate the risk, lower the probability and the impact of the risk.

4-Risk Monitoring and Control

Risk monitoring and controlling is an iterative process that uses progress status reports and deliverable status to monitor and control risks. The process Identify new risks and plane for them, it Keeps track of existing risks, and monitor any risks that could become more critical over time

2.2 Results and Discussion

We can conclude that both Earned Value Management (EVM) and Risk Management (RM) seek to improve decision-making by providing a rational framework based on project performance. EVM examines past performance against clearly defined quantitative metrics and uses these to predict the future outcome for the project. RM looks ahead to identify and assess uncertainties with the potential to affect project performance either positively or negatively and develops responses to address each risk proactively. Both techniques share a focus on project performance and have the same purpose of developing effective actions to correct unwelcome trends to maximize the likelihood of achieving project objectives. One (EVM) does this by looking back at past performance as an indicator of likely future performance. The other (RM) looks ahead at possible influences on future project outcomes.

2.3 References

- 1- <https://www.pmi.org>
- 2- Hubbard, Douglas (2009). The Failure of Risk Management: Why It's Broken and How to Fix It. John Wiley & Sons
- 3- Peter Simon and David Hillson, Practical Risk Management: The ATOM Methodology (2012). Management Concepts. Vienna, VA.
- 4- Baierlein, Jeff (2019). Risk Management for Outdoor Programs: a Guide to Safety in Outdoor Education, Recreation and Adventure. Seattle, WA: Viristar LLC.
- 5- Craig Taylor; Erik VanMarcke, eds. (2002). Acceptable Risk Processes: Lifelines and Natural Hazards. Reston, VA: ASCE, TCLEE.
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