



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 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..

Project Risk Management

➤ Introduction

Risk management is defined as the system of recognition, assessment, and risk management for the capital and benefit of an entity. These problems, including financial uncertainty, statutory responsibilities, strategic management errors, accidents and natural disasters, could arise from a number of causes. IT vulnerabilities and data based threats have gained top priority for digitised companies as well as risk management approaches to minimise them. The tools used by companies to identify and track threats to their digital property, for example sensitive business data, personal identifying customer information (PII) and intellectual property, are therefore being progressively utilised in risk management systems. Each company and organisation, incident that can cost them income or cause them to close permanently may be unforeseen and harmful. Risk management allows companies to cope with the unexpected by reducing uncertainties and unnecessary costs before they take place.

By implementing a risk management plan and taking account of the many potential risks or events before them, a business may save money and protect prospects. Since a strong Risk Management Approach will help a company in developing strategies aimed at preventing, mitigating and handling future risks. If organisations can take risk into consideration and handle, they would be safer in their strategic choice. In order to achieve the objectives of a company, sound corporate governance practises which focus on risk management will also help.

➤ Literature review

Risk management is based on the principle of probability and decision-making under uncertainty. In particular, there was a major influence on the expected utility theorem, the theory of limited rationality and prospect theory. The idea of the expected utility principle says that decision-making depends on the expected usefulness of different choices. Limited rationality theory states that it is impossible in the real world to understand various results and the probabilities. Theory Prospect helps to simulate the impacts on decision-making of human experience. (Christian Democrats, & Kumar, 2006).

Project risk management is the art and science of the recognition, assessment and reaction to risks over the course of a project in order to achieve project objectives (Schwalbe,2006).

From the start of the period, everybody, whether or not they are aware of it, has done a risk evaluation informally. Modern risk management has its roots in insurance, with which it has been closely linked for more than three decades, and was established as a widely known management function between 1955 and 1964 (Snider, 1991). Risk management wasn't always satisfied and analysis suggests that unexpected events are currently ineffective. Project management was severely critically chastised in the 1960s due to lack of technical sophistication, contact policy, opposition among citizens and environmental consequences of projects. Project management (Morris, 1997). A project manager may also say that the last two are outside of their direct influence (Ibid) external project concerns and that these will normally be transferred to higher management levels (Chapman & Ward, 1997).

The core risk management priorities are (Yee et al. 2001): risk management

- To make decision-making more organised and less discretionary.
- A clearer understanding of the challenges a project faces can be obtained by identifying threats and solution situations.
- To help determine which risks call for and which should wait immediately.
- * To make administrators aware of the various impacts of a project and that it is possible to take appropriate steps to minimise any negative impacts.

➤ Methodology

The descriptive method is adopted in this study. The risk management research involves the collection of data from previous literature and studies. In the discussion, we will include additional application risk management applied to a project.

➤ Results and Discussion

Strategy for Risk Management

In order to start (CAF coffee shop), we discussed the maximum risks which should be taken into consideration when completing the project plan with the stakeholders (interviews) based on brainstorming and discussed among the different employees. All threats have been recognised and identified and a

countermeasure for each risk has been identified. Staff will do everything possible to ensure that risk mitigation measures are taken if they occur.

Risk Identification:

Description	Risk			How the risk is reduced and prevented
	P	S	P*S	
Fire harm to life and property	3	5	15	Make sure the smoke detectors, fire extinguishers function properly and still take the role by routine checks and tests. For cases of fire, including how to evacuate, staff training shall be given. The detrimental effect of fire on life and property by the purchase of insurances is adequately covered.
Suppliers modify their terms of delivery	2	3	6	Establishing good ties with long-term providers and maintaining them. Ensure a correct Plan B if the terms and conditions of the suppliers are changed.
Food hygiene is not guaranteed or food is toxic	2	4	8	Only use the highest quality ingredients and provide instruction for workers for the hygiene of food preparedness. Manage the inventory expiry date promptly.
Suppliers fail to comply with their procurement commitments	2	4	8	For additional options, prepare a list of more than one supplier. In addition, alternatives should also be considered.

Risk Matrix:

Risk probability	Risk severity				
	Catastrophic 5	Hazardous 4	Major 3	Minor 2	Negligible 1
Frequent -5					
Occasional-4					
Remote -3	15				
Improbable-2		8 8	6	4	
Extremely improbable-1			3		

EMV:

No. risk	P	I	EMV
1	30%	5000	1500
2	20%	3000	600
3	20%	4000	800
4	20%	4000	800
5	10%	3000	300
6	20%	2000	400

Total EMV= 4400

Danger register:

A continual evaluation, basic examination and suggestion for the purpose of determining the counter-date was made by the project manager and the project committee. Possibility with an eye out. Time is a primary choice of four. The best option at the right time. The project manager who will alert stakeholders directly will be notified of both risks.

Risk	Source	Prevention	Response	Impact
Fire	Cooking unexpected	Oversight	Alarm fire	Inhalation of smoke and death
Poisoning	Workplace hygienic	Conditions of hygiene	Manage dates of expiry	Death or stomached
Material insufficient	Suppliers fail to comply with their procurement commitments	Make plan B or suppliers' alternative list	Use replacement goods	It stops working / decreasing profit
Conflicts	Property owner	Negotiations	The relationship is friendly	The shop loss
Resignation of key personnel	Leave of maternity	Training	Train other main employees	Scarcity

Eventual risk plan:

Risk description	Grade	Mitigation action
Fire harm to life and property	A	The shop must reconstruct and run the business as soon as possible after the fire losses while waiting for compensation from the insurance company.
Suppliers modify their terms of supply	C	Choose alternative vendors or raise working capital by personal cash reserves.
Food hygiene is not guaranteed or food poisoned	B	Investigate the food poisoning explanation promptly. Help as much as possible the affected customers. Activate processing of complaints.
Suppliers fail to comply with their procurement commitments	B	Purchase from other manufacturers or choose the appropriate replacement items.
Discussions or arrangements with the location's owner.	D	Hire counsel or prosecution attorney.
Key personnel resign or leave maternity	D	Offer a short-term replacement contract (until permanent employees may do the job).

A= Measures to minimise the probability and the seriousness of the project to be found and carried out as a priority as soon as the project starts.

B= Measures for mitigating, reducing probability and severity, identifying and implementing effective measures during project execution.

C= Action to mitigate, minimise chance and severity, identify and cost potential action if funding allows.

D= noticeable - no intervention is required unless there is increased grading over time.

➤ **Summary and Recommendation**

The risk analysis and management of projects is a continuous procedure, which can commence at any point of the project cycle and last and continue until the costs of its usage exceed its potential benefits. The project is progressing, risks are reduced and thus risk mitigation and management efficacy appears to be less successful so that it is recommended to use it in the early stages of the project life cycle. No project exists with no risks but all projects have risks and, after identification and management, the analysis of these risks is part of the project management and will fail without that.

➤ **References**

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