



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:

- آخر 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. وإن 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 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..

Supermarkets

Introduction

Risk management involves identifying, assessing, and controlling threats to the earnings and capital of an organization. There are several threats which an organization can face: legal liabilities, financial uncertainty, accidents, strategic management errors, and natural disasters (Rot, 2009). In the digital era, a top priority of many organizations is to alleviate data-related and IT security threats. The more an organization uses computer-based information systems, the more they need to rely on secure ICT solutions. For this project, the inclusion of a risk management plan for data-related and IT security threats is a must because it involves computer technology. Unexpected or harmful events are inevitable for any business setting, and they can cause significant losses. It is thus necessary that organizations put a risk management plan in place as a preparation for future uncertainties. In so doing, they can minimize extra costs and risks before they happen.

Literature Review

Risk management entails implementing and identifying effective controls to the security to control, mitigate, and resolve risks within the organization. There are four major risk management components: risk identification, risk analysis, risk-reducing measures, and risk monitoring (Zwikaël & Ahn, 2011). The main risk management process is risk analysis. It involves the identification and evaluation of risks that have to be minimized or controlled. The risk analysis objective is to provide information that is indispensable for making decisions. It involves the following: resource evaluation, assessment of consequences, identification of threats, analysis of protections, analysis of susceptibility, and assessment of probability. This information is always approximate unless it is based on other enterprises' experiences.

Two main methods are utilized in risk analysis of organizations assets: quantitative and qualitative. In a quantitative method, risk value estimation is connected with numerical measures application. Resource's value is described in amounts, threat occurrence frequency is described in cases number, whereas susceptibility is described by probability value of its loss. In a qualitative method, results are presented in descriptions/recommendations form. Risk assessment is connected with the value of assets qualitative description, qualitative scales determining threat occurrence frequency, and a given threat susceptibility. Different risk measures can be applied based on a given threat seriousness. For instance, simple assessment where the risk is determined as high, medium or low, and more precise indicators are presented as event occurrence probability.

Methodology

This research follows the qualitative method. Risk assessment is conducted through data collection from previous literature and studies. Risk management will be further applied in the project under consideration.

Risk Management Strategies

This project would employ four strategies to manage risk: risk avoidance, risk reduction, risk transfer, and risk retention. Through brainstorming and discussion, maximum risks will be determined, and they would be referred to during project execution. Countermeasures to the risk will be established, and team members will mitigate them if they arise.

Identifying Risks

Description	Risk			Means of preventing or Mitigating
	P	S	P*S	
1. Fires	3	5	15	Fire sprinklers systems and fire extinguishers should be regularly maintained. All staff should be trained on fire safety. Exhaust hoods (in case there are cooking areas) should be cleaned and regularly inspected.
2. Theft and Robberies	3	3	9	Security cameras should be installed in visible places to scare criminals. Security personnel should be trained to enhance quick spotting and reporting of suspicious activities. Eliminate dark and obscured areas.
3. Tainted Food	2	3	6	Enforcing strict quality control standards and measures.
4. Hacking	2	4	8	Train employees on possible means through which hackers can retrieve sensitive information about the organizations, e.g., phishing attack.
5. Delayed Supplies	2	4	8	Carry out a thorough examination of potential suppliers. Have more than one supplier option.

Risk Matrix

Risk Probability	Risk Severity				
	Catastrophic (5)	Hazardous (4)	Major (3)	Minor (2)	Negligible (1)
Frequent (5)					
Occasional (4)					
Remote (3)	15		9		
Improbable (2)		8, 8	6		
Extremely Improbable (1)					

EMV

No. Risk	P	I	EMV
1	30%	5000	1500
2	30%	3000	900
3	20%	3000	600
4	20%	4000	800
5	20%	4000	800
Total EMV			4,600

Record of the Risk

Communication will be made to the project manager regarding the identified threats and possible prevention/mitigation measures, sharing the information with stakeholders.

Risks and Triggers

Risk	Source	Prevention	Response	Impact
Fire	Cooking areas/ Exhaust hoods/ Short-circuiting	Close supervision/ Regular inspection	Fire alarm/ Fire Sprinkler Systems/ Fire Extinguishers	Death/loss of property
Theft and Robberies	Criminals	Vigilant supervision	Call the police	Loss of property
Tainted Food	Suppliers not meeting quality requirements	Enforcement of strict quality inspections	Manage quality standards	Unsatisfied customers consequently low sales
Hacking	Malware/Phishing	Vigilant when sharing personal information or using the internet	Incidence response by IT professional	Loss of money
Delayed Supplies	Suppliers not fulfilling their duties	Good Communication	Use alternative supplier	Unsatisfied customers consequently low sales

Risk Contingency Plan

Risk Description	Grade	Mitigation Action
Fire damages (property/life)	A	Return to business as soon as possible. Await payment from insurance.
Theft and Robberies	B	Resume operation as soon as possible. Learn from the experience and develop strong security measures
Tainted food	C	Select alternative suppliers
Hacking of the data system	B	Resume operation as soon as possible. Invest in a robust internet security system.
Delayed supplies of products	B	Purchase from alternative suppliers

A= Mitigation actions that are top priorities and are implemented once the project commences.

B= Mitigation actions that are implemented with appropriate actions during the execution of the project.

C= Mitigation actions that are implemented if funds permit.

References:

1. Rot, A. (2009). "Computer Support of Risk Analysis in Information Technology Environment." Proceedings of the 2009 International Conference on Security & Management.
2. Zwikael, O., and Ahn, M. (2011). "The Effectiveness of Risk management: An Analysis of Project Risk Planning Across Industries and Countries." Risk Analysis: An Official Publication of the Society for Risk Analysis, 31(1), 25–37.
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