



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. 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 حريقا 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..

Coffee house

Introduction

A risk is defined as an event or an uncertain situation that, if it occurs, has either a positive or a negative impact on the objective of the project(PMBOK®, 2000).

The first step in application any risk management process is to understand what the risks are.

Project risk management is one of the basic practices to ensure that the least number of surprises occur during project implementation. In fact, it is not possible to fully predict the future with certainty, while it is possible to implement a risk management process that enables us to predict the uncertainties in the project and reduce the occurrence or effects of these uncertainties.

Project risk management contributes to improving project management practice and thus project performance. Identifying unknown risks is one of the most important goals of risk management, because it will allow time to address or avoid the unknown. This is what will be done in the coffee shop project.

Literature review

Risk evaluation may be quantitative, using a risk model or simulation to estimate exposure, or it may be qualitative, describing characteristics of each risk in sufficient detail to allow them to be understood(Hillson & Murray-Webster, 2005).

The researcher reviewed and investigated the appropriateness of differences project management approaches designed to redur influence of risk and to raise the likelihood project success (Couillard, 1995) . The analysis of his survey indicate that the best experienced project managers are assigned to the riskier projects in generally , and that riskier projects are more formally planned and more closely monitored and controlled in generally. The researcher studied how project context and participant

characteristics influence implementation of project risk management processes (Ward , 1999) .He proposed a generic framework, he claims can be applied to get better the effectiveness of the organization risk management efforts.

The researcher found that one cannot expect that risk management processes will be one comprehensive risk management process and its set of supporting tools and techniques are applicable to all types of projects. Just as there are many different types of projects, we should expect to see different types of risk management practices(Shenhar, 1998).risk management is very important in the project planning stage and augments its scope and depth when the project progresses acrosses the execution phase, while the completion phase reduces (Ward Chapman, 2003).

Methodology

In this study for the Coffee Shop Project, will use the tools and techniques of risk management through brainstorming, to identify, analyze, calculate EMV, and respond to the project risks.

Identifying risks

Table 1

No	List of risks	Source	prevention
1	Fire damage to the assets	Gas leakage, short circuit, cooking without supervision	Supervision

2	Malfunction of coffee machine	Negligence, not doing a periodic inspection of the machine	Maintenance and periodic of the coffee machine
3	High import prices for coffee	Tax hike, import price hike	Alternatives through import at a lower price
4	Experienced staff resignation	Job dissatisfaction	Training for those without experience
5	The shop being stolen	Lack of a surveillance camera and alarm devices	Monitoring devices
6	Injury during work	Exposure to illness, burns while cooking	first aid kit, focus while performing the work,

Impact – probability of risk occurrence:

Impact –probability		
Low $0 \% < x < 30\%$	Medium $30 \% \leq x < 60\%$	High $60 \% \leq x \leq 100\%$

Table 2

No	List of risks	Probability	Impact
1	Fire damage to the assets	0.4	0.7
2	Malfunction of coffee machine	0.2	0.5
3	High import prices for coffee	0.3	0.3
4	Experienced staff resignation	0.2	0.4
5	The shop being stolen	0.2	0.6
6	Injury during work	0.3	0.4

Risk matrix

Figure1

probability	$60\% \leq x \leq 100\%$	High	High	Medium
	$30\% \leq x < 60\%$	High	Medium	Low
	$0\% < x < 30\%$	medium	low	low
		$60\% \leq x \leq 100\%$	$30\% \leq x < 60\%$	$0\% < x < 30\%$
		Impact		

Table 3

No.	List of risks	Probability	Impact	Severity	Response plan	Mitigate action
1	Fire damage to the assets	0.4	0.7		Fire alarm	Buying a property insurance policy, inspection fire extinguishers, sensors and smoke alarms, dealing immediately if the risk is increased to avoid and reduce losses
2	Malfunction of coffee machine	0.2	0.5		Daily check	Inspect the machine periodically, and make sure of its safety on a daily basis
3	High import prices for coffee	0.3	0.3		Alternative	Ensure that there is an alternative

						import possibility at a lower price, and maintain a good relationship with suppliers
4	Experienced staff resignation	0.2	0.4		Training	Ensure that employees who do not have experience are trained to be prepared for such situation
5	The shop being stolen	0.2	0.6		Protection devices	Ensure that there are surveillance cameras working at all times, with an alarm bell for theft
6	Injury during work	0.3	0.4		The basic kit	Ensure that first aid equipment is available, provision of employee insurance

Results

Calculate EMV will be displayed in the table below.

Table 4

No	Risk	Probability (P)	Cost impact (IC)	Risk contingency (P*IC)
1	Fire damage to the assets	40%	\$ 6000	\$ 2400
2	Malfunction of coffee machine	20%	\$ 3000	\$ 600
3	High import prices for coffee	30%	\$ 2000	\$ 600
4	Experienced staff resignation	20%	\$ 3000	\$ 600
5	The shop being stolen	20%	\$ 4000	\$ 800
6	Injury during work	30%	\$ 4000	\$ 1200

Total EMV= \$ 6200

Discussion

As shown in figure, there are 3 classifications: low, medium, high, and this means that we must focus carefully on the high risks that are in red and also the medium risks that are in yellow, so it is important not to waste time and effort on the low risks that are in green.

As shown in table 4, the EMV calculating contain probability * impact. The sum of the expected monetary value of all events is the contingency reserve. Calculating the expected monetary value has good effects on achieving project goals and being prepared for the expected risks.

References

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