



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 مبنى 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 إدارة 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 وتصنيف 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.

سنقوم 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..

## **Risks of Opening a Local Library, Coffee shop, and Study Rooms**

### **(SPARK Project)**

#### **Introduction:**

Libraries play a fundamental part in every community. It is like a getaway to knowledge and culture for all people in different ages. All cities and neighborhoods should have their own library, so it became easy for everyone who lives there to attend it regularly. Nowadays, a lot of people prefer to read or study in a coffee shop instead of attending a library because most libraries prohibit drinking, eating, or talking. Opening a new local library as a business can lead to many risks that can cause financial loss and wasting of resources. By applying risk management strategies, we can protect our business from negative consequences.

#### **Literature Review:**

Risk management is the process of identifying, assessing and controlling threats to an organization's capital and earnings. These threats, or risks, could stem from a wide variety of sources, including financial uncertainty, legal liabilities, strategic management errors, accidents and natural disasters. Risk can be perceived either positively (upside opportunities) or negatively (downside threats). A risk is the potential of a situation or event to impact on the achievement of specific objectives.

Risk Management can save business money, reduce the chance of injury in the workplace, protect a company's resources, and improve a company's brand image. It is no longer acceptable for organizations to find themselves in a position whereby unexpected events cause financial loss, disruption to normal operations, damage to reputation and loss of market presence. Stakeholders now expect that organizations will take full account of the risks that may cause disruption within operations, late delivery of projects or failure to deliver strategy. To be successful, the risk management initiative should be proportionate, aligned, comprehensive, embedded, and dynamic (PACED).

#### **Methodology:**

Brainstorming about potential risks is our first step in the risk planning process.

Table 1

| No. | List of Risks                                                  |
|-----|----------------------------------------------------------------|
| 1   | Unable to obtain a governmental approval for opening the place |
| 2   | Fire accident                                                  |
| 3   | Low revenue                                                    |
| 4   | People do not return rented books                              |
| 5   | Food poisoning                                                 |
| 6   | Lockdown due to weather or medical crisis                      |
| 7   | Opening of a competitor place                                  |
| 8   | Key staff resigns, die, or takes emergency leave               |

The next step, after listing the potential risks, is making the risk (determine the probability and impact of each risk).

Low = 0 to 0.29, medium = 0.3 to 0.69, high = 0.7 to 1

Table 2

| No. | List of Risks                                                  | Probability | Impact |
|-----|----------------------------------------------------------------|-------------|--------|
| 1   | Unable to obtain a governmental approval for opening the place | 0.2         | 1      |
| 2   | Fire accident                                                  | 0.2         | 1      |
| 3   | Low revenue                                                    | 0.3         | 0.5    |
| 4   | People do not return rented books                              | 0.5         | 0.2    |
| 5   | Food poisoning                                                 | 0.15        | 0.3    |
| 6   | Lockdown due to weather or medical crisis                      | 0.3         | 0.6    |
| 7   | Opening of a competitor place                                  | 0.3         | 0.3    |

|   |                                                  |     |     |
|---|--------------------------------------------------|-----|-----|
| 8 | Key staff resigns, die, or takes emergency leave | 0.3 | 0.6 |
|---|--------------------------------------------------|-----|-----|

The third step is to identify the severity level for each risk and document the recommended response if that risk happened or how to prevent it from happening. We will use Risks Matrix to find the response plan.

Figure 1

|             |          |        |          |        |
|-------------|----------|--------|----------|--------|
| Probability | 0.7-1    | high   | high     | medium |
|             | 0.3-0.69 | high   | medium   | low    |
|             | 0-0.29   | medium | low      | low    |
|             |          | 0.7-1  | 0.3-0.69 | 0-0.29 |
|             |          | Impact |          |        |

Table 3

Abbreviation: (L: low; M: medium; H: high)

| No. | List of Risks                                                                                                         | Probability | Impact | Severity | How to prevent and mitigate the risk                                                                  |
|-----|-----------------------------------------------------------------------------------------------------------------------|-------------|--------|----------|-------------------------------------------------------------------------------------------------------|
| 1   | Unable to obtain a governmental approval for opening the place due to different business activities in the same place | 0.2         | 1      | M        | If this happen, we can separate the library from the coffee shop (but still close to each others) and |

|   |                                                          |      |     |   |                                                                                                                                                    |
|---|----------------------------------------------------------|------|-----|---|----------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                                                          |      |     |   | obtain 2 governmental approvals                                                                                                                    |
| 2 | Fire accident to the place and to the staff or customers | 0.7  | 1   | M | Put smoke alarms and ensure that it is working properly by checking it regularly. Buy property insurance.                                          |
| 3 | Low revenue                                              | 0.3  | 0.5 | M | Do not depend on one kind of services, but open new services that can cover the loss. Increase the advertising activities and fix the prices.      |
| 4 | People do not return rented books                        | 0.5  | 0.2 | L | Take the customer id number and contact information before they rent the book. Send reminders through email and direct messages. Take rent fee.    |
| 5 | Food poisoning from the coffee-shop                      | 0.15 | 0.3 | L | Ensure that all staff follow hygiene precaution and ensure that ingredients are not expired.                                                       |
| 6 | Lockdown due to weather or medical crisis                | 0.7  | 0.7 | M | Open other online services like buying online books, youtube channel, smartphone application for audio books, delivery service for the coffee shop |

|   |                                                  |     |     |   |                                                                                                                                              |
|---|--------------------------------------------------|-----|-----|---|----------------------------------------------------------------------------------------------------------------------------------------------|
| 7 | Opening of a competitor place                    | 0.3 | 0.3 | M | Increase advertising activity, open unique services, and provide competing prices.                                                           |
| 8 | Key staff resigns, die, or takes emergency leave | 0.3 | 0.6 | M | Always have a substitute staff that can cover any missing one. Put on the contract that staff must give a 2 month notice before they resign. |

### Results:

In this step, we need to calculate the EMR cost for this project. These are estimated costs.

Table 4

| No. | List of Risks                                                  | Probability | Impact cost SR | Risk contingency |
|-----|----------------------------------------------------------------|-------------|----------------|------------------|
| 1   | Unable to obtain a governmental approval for opening the place | 0.2         | 5000           | 1000             |
| 2   | Fire accident                                                  | 0.2         | 20,000         | 4000             |
| 3   | Low revenue                                                    | 0.3         | 2000           | 600              |
| 4   | People do not return rented books                              | 0.5         | 500            | 250              |
| 5   | Food poisoning                                                 | 0.15        | 1000           | 150              |
| 6   | Lockdown due to weather or medical crisis                      | 0.3         | 2000           | 600              |
| 7   | Opening of a competitor place                                  | 0.3         | 1500           | 450              |

|   |                                                  |     |        |       |
|---|--------------------------------------------------|-----|--------|-------|
| 8 | Key staff resigns, die, or takes emergency leave | 0.3 | 1500   | 450   |
|   | Total                                            |     | 33,500 | 7,500 |

### Discussion:

Table 3 shows us how we can avoid these risks and prevent negative consequences from happening. It also presents the severity level for each risk, so we can prioritize our effort in managing them. The red color means that huge efforts should be done to avoid the huge loss that might happen.

Table 4 gives us the estimated cost for each risk is happened. The total cost could reach 33, 500 if all risks happened, but the risk contingency is only 7,500. As we can see, the risk of fire accidents has the biggest impact on our budget with an impact cost of 20,000, so we must do our best in preventing it from happening.

### References:

