



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

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Section

Master

Date

Thursday

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Course Code

(PMG510)

Project Risk Management

Instructions:

- اخر موعد للتسليم هو يوم السبت 2021-05-08 في تمام الساعة 9 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 1.5 line spacing
- 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..

Developing the historical Diriyah

Introduction :

Cultural heritage is a precious wealth and source of true identity that contributes to preserving the local environment for every community. To understand the term disaster, one must also understand the term hazard and the human sensitivity to it. In general, disasters occur when risks converge with vulnerability (Vulnerability), which is an essential part of risk and risk research. Vulnerability refers to the sensitivity or degree of vulnerability or vulnerability to the vulnerabilities of persons, communities, or regions to risks, and the level of this vulnerability is determined by Physical, social, economic and .environmental factors

The likelihood of a risk turning into a disaster depends mainly on the ability of the community to address the basic "risk" factors and reduce the vulnerability and vulnerabilities of the community, and then prepare to respond in the event of an emergency. According to the International Strategy for Disaster Reduction (ISDR), disasters, risks, hazards, and vulnerabilities are different definitions, but with similar concepts. 3 A natural disaster can be defined as "a serious disruption in the functioning of society, which causes human, material or environmental losses. Large-scale risks resulting from risks that exceed the ability of the affected community to face it with its own resources only. "The risk is" a dangerous physical phenomenon or human activity that may cause loss of life or injury, other health effects, property damage, loss of livelihoods and services, or disruption. Economically and socially, or environmentally harmful

Ad Diriyah plays a pivotal role in the political history of the Kingdom of Saudi Arabia, as it was the capital of the first Saudi state. Its political and advocacy role is evident at the level of the Kingdom, as it has laid the foundations for the state and the foundations of the creed since its inception. The demise of Imran al-Diriyah at the beginning of the nineteenth century AD made it deserted in most of its parts

The efficiency of the performance of the tourism and antiquities sector in the Kingdom depends on the integration of governmental and private initiatives, as the General Authority for Tourism and Antiquities mobilizes the efforts of all concerned government agencies to provide the basic equipment and public services necessary for the development of tourism, and in return the private sector provides tourism services, such as accommodation facilities, restaurants, cafes and parks Car rental companies, shopping centers, cultural and sports events and the like. To support efforts to develop this sector, the authority has established tourism departments in the various regions of the Kingdom, to undertake the follow-up of the implementation of the project Developing the historical Diriyah

Literature Review :

The Royal Commission for Riyadh has carried out many studies related to the urban, historical, tourism and investment aspects of Diriyah, through a wide range of international and local consultants with diverse experiences in urban design and museum planning as well as tourism activation. These plans and studies have been culminated in setting the final executive plan for developing Al-Diriyah and the tourism development plan in it

The implementation plan is divided into two phases, a basic phase and a supplementary phase, where the basic phase (which is the current phase of the program) contains three development projects: the Al-Turaif neighborhood development project, the Al-Bujairi neighborhood development project, road projects and public utility networks

The authority has also developed a management and operation plan, according to which the authority will undertake the planning, implementation, operation and maintenance work, while the General Authority for Tourism and National Heritage will operate and manage the Al-Turaif neighborhood, and attract economic and tourism investments for the entire historic Diriyah

Methodology :

Risk impact:

- High – Catastrophic (Rating A – 100)
- Medium – Critical (Rating B – 50)
- Low – Marginal (Rating C – 10)

It identifies the timeframe for this risk to affect it. The following is classified as one:

Timeframe	Description
Near	Now- until one year
Mid	One year till 2 years
Far	2 years till 3 years

Impact-Probability Matrix:

Impact	Probability			
	High $80\% \leq x \leq 100\%$	Medium high $60\% \leq x \leq 80\%$	Medium low $30\% \leq x \leq 60\%$	Low $0\% \leq x \leq 30\%$
A = High	(Exposure - Very High) (Score 100)	(Exposure - Very High) (Score 80)	(Exposure - High) (Score 60)	(Exposure - Moderate) (Score 30)
B = Medium	(Exposure - High) (Score 50)	(Exposure - Moderate) (Score 40)	(Exposure - Moderate) (Score 30)	(Exposure - Low) (Score 15)
C = Low	(Exposure - Low) (Score 10)	(Exposure - Low) (Score 8)	(Exposure - Low) (Score 6)	(Exposure - Low) (Score 3)

Risk classification:

Risk description	Probability	Impact	Score
Estimation of time or cost may errors that affect the project scope seriously	40%	B	30
Some of the project items used new technology in execution contain new processes	75%	B	40
In-time materials not being delivered will delay work	60%	A	80
A new government comes may cancel the project	20%	C	10
Rainy weather increases soil volume, on the other hand windy weather pollutes air	60%	B	40
Due to the big number of contractors at the site. Co-ordination problems are probable	70%	B	40
The prices are subject to increases affecting the cash out	45%	A	60
Total			300

EVM calculation:

Risk description	Risk Probability	Cost Impact	Risk Contingency
Estimation of time or cost may errors that affect the project scope seriously	0.4	100,000	40000
Some of the project items used new technology in execution contain new processes	0.75	70,000	52,500
In-time materials not being delivered will delay work	0.6	30,000	18,000
A new government comes may cancel the project	0.2	20,000	4,000
Rainy weather increases soil volume, on the other hand windy weather pollutes air	0.6	40,000	24,000
Due to the big number of contractors at the site. Co-ordination problems are probable	0.7	60,000	42,000
The prices are subject to increases affecting the cash out	0.45	15,000	6,750

Discussion :

- Define the Cost and Duration Cumulative Probability Curves
- Establish the cost and schedule contingency required for the total project as well as for each cost and schedule element
- Establish the basis for the Risk Mitigation Plan

References :

Diriyah gete web site
 Royal Commission for Riyadh web site
 Ministry of Economy & Planning web site
 okad newspaper web site
 Riyadh newspaper web site