



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 08-05-2021 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 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..

Risk Identification and Analysis for (Project of Establishing an Institution for Sale, Design, Installation and Maintenance of Security Surveillance Systems)

1. Introduction

With the increasing number of crime and thefts and the importance of monitoring property and business, the importance of security surveillance systems has emerged. From this importance came the idea of a project to establish an institution for the sale, design, installation, and maintenance of security surveillance systems. As we know, beginnings are the most important part of performing any job. In the world of project management, risks are part of any project; however, the ways to deal with these risks are the key of success. Many project experts emphasized the initiation phase of the project due to the information it carries that contribute to the completion of the project's process. As a project manager for the project, I will do risk identification and analysis in the project initiation of the project.

2. Literature Review

Some potential risk events can be identified before the project begins - such as Equipment malfunction or change in technical requirements. Risks can be expected consequences, such as schedule delay or cost overrun. The stakes could be beyond imagination, such as the 2008 financial meltdown [1].

2.1 Risk Identification

The risk management process begins with trying to create a list of all potential risks that could affect the project. Typically, the project manager brings together, during the planning phase, a risk management team consisting of core team members and other relevant stakeholders. Research has shown that groups make more accurate judgments about risk than individuals do (Snizek and Henry, 1980). The team uses brainstorming and other methods to identify problems to identify potential problems. Participants are encouraged to keep an open mind and generate as many potential risks as possible. More than one project was damaged by an event that members thought was initially unreasonable. Later during the

evaluation phase, participants will have an opportunity to analyze and filter out unreasonable risks [1].

2.2 Risk Assessment

Simply put, risk must be assessed in terms of the likelihood of the event occurring and the impact or consequences of its occurrence. The risk of a project manager being struck by lightning at the job site will have a significant negative impact on the project, but the likelihood is very low and not worth studying. On the contrary, people change their jobs, so an event such as loss of key project personnel will not only have a negative impact but will also have a high probability of occurring in some organizations. If so, it would be prudent for this organization to be proactive and reduce this risk by developing incentive schemes to retain specialists and / or engaging in joint training to reduce the impact of employee turnover [1].

3. Methodology

As mention in descriptive approach, this research will follow it to identify and analyze the risks related to (Project of Establishing an Institution for Sale, Design, Installation and Maintenance of Security Surveillance Systems) at initiation phase.

4. Result and Discussion

4.1 Identifying Risks

After doing brainstorming, we get this list of risks:

1. Failure to obtain work permits necessary to perform the project.
2. Unsuitability of the chosen work site to perform the project.
3. The project site implementation contractor is late for delivery and its cost is high.
4. Technical problems in the application and the website in the event of delivery by the technical contractor for the project.
5. The occurrence of a home quarantine due to an epidemic in the region.
6. Completion of the entire project ahead of time.

4.2 Risks Assessment

No.	Risks List	Probability (P)	Severity (S)	P*S
1	Failure to obtain work permits necessary to perform the project	2	4	8
2	Unsuitability of the chosen work site to perform the project	3	3	9
3	The project site implementation contractor is late for delivery and its cost is high	2	2	4
4	Technical problems in the application and the website in the event of delivery by the technical contractor for the project	4	2	8
5	The occurrence of a home quarantine due to an epidemic in the region	4	4	16
6	Completion of the entire project ahead of time	1	1	1

4.3 Risks Matrix

Risk probability	Risk severity				
	Catastrophic 5	Hazardous 4	Major 3	Minor 2	Negligible 1
Frequent - 5					
Occasional - 4		16		8	
Remote - 3			9		
Improbable - 2		8		4	
Extremely improbable-1					1

4.4 EMV calculation

Risk No.	P	IC	EMV
1	0.2	5000	1000
2	0.3	10000	3000
3	0.2	15000	3000
4	0.4	3000	1200
5	0.4	8000	3200
6	0.1	-5000	-500
Total		36000	10900

4.5 Discussion

After doing a risk identification and analysis for (Project of Establishing an Institution for Sale, Design, Installation and Maintenance of Security Surveillance Systems). it was concluded that 5.45% of the total project cost value which estimated at 10,900 Saudi Riyals must be added as contingency budget. So that, the total budget of the project becomes 210,900 Saudi Riyals.

5. References

1. Larson, E., & Gray, C. (2013). *Project management: The managerial process with MS project*. McGraw-Hill Education.