



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 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 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 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 لا تستدعي 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..

Name of the Project: Launching an advertising agency in Dammam – Saudi Arabia

INTRODUCTION

Risk management plans contribute to project success by establishing a list of internal and external risks. This plan typically includes the identified risks, probability of occurrence, potential impact and proposed actions. Low risk events usually have little or no impact on cost, schedule or performance. Moderate risk causes some increase in cost, disruption of schedule or degradation of performance. High risk events are likely to cause a significant increase in the budget, disruption of the schedule or performance problems. Having a risk management plan in place allow you to be proactive and take steps to mitigate possible harms before they arise, instead of constantly firefighting. The project team can take the risk that have been identified and convert them to actionable steps that will reduce likelihood. Those steps then become contingency plans that hopefully can be aside. Should a risk event occur, the contingency plan can be whipped out quickly, reducing the downtime on a project [1].

LITERATURE REVIEW

There are multiple uncertainties during phases of the projects such as technological and market uncertainties which are transform into project risks. Hence, the development of risk models is essential to assist the project managers to make appropriate decisions during the initial stage of the project life cycle. Although, many approaches are developed for performing the risk analysis during the growth and maturity periods of the project, the methodology for risk evaluation needs further research. In my research I will describe the approach for dealing with the impact of the risks of this project [2].

Risk efficiency in terms of expected cost and cost risk has direct analogies in terms of duration, quality, and all other relevant performance criteria that need facilitate, demonstrate and apply risk management activities. As addressed later and further explained in Chapman and Ward (2002). Further, risk efficiency in this multiple attribute sense links project risk management to project value management, project quality management. The objective is jointly optimizing the design associated with a project,

the duration of the project, its resource usage, its cost, and the quality of what is delivered, in terms of expected performance and associated risk, with appropriate trade-offs [3].

METHODOLOGY

The first step in managing risk is to identify all possible risks. The objective of risk identification is the early and continuous identification of events that, if they occur, will have negative impacts on the project's ability to achieve performance or capability outcome goals. They may come from within the project or from external sources. I will list the risk events in my project that will have effect on cost, schedule and other objectives with taking into consideration the probability of the event.

Serial #	Risk	Type	Probability	Impact
1	Cash flow shortages at the beginning of the business that will lead to lack of racecourses and delays the project.	Financial	70%	0.8
2	Regulations imposed by the industry authorities which could affect the integrity of the contracts.	Compliance	20%	0.2
3	Equipment failure or software failure will cause malfunction and stop the service for customers.	Operational	80%	0.4
4	Being unable to respond to fluctuations in customer demand, innovation of superior technology	Opportunities	50%	0.3

RESULTS AND DISCUSSION

EVM calculation:

Risk Serial #	Probability	Cost of Impact	Risk Contingency
1	0.7	14000 \$	9800 \$
2	0.2	4000 \$	800 \$
3	0.8	7000 \$	5600 \$
4	0.5	5000 \$	2500 \$
Total		30000\$	18700 \$

CONCLUSION

There is an inherent need for the development and implementation of robust risk management frameworks in order for projects to be successful. This methodology applied to projects can help quantify and manage risks effectively. Proposed risk method expands the concept of the two-dimensional Risk Score, which is calculated from the probability of risk occurrence and the perceived impact of risk occurrence, by adding a detection score to the risk analysis. The identification and quantification of a risk, as well as its impact, can have significant effects on the success of a development project. Project managers can implement the proposed method to improve project success by focusing on key risks, which in turn can influence the success of a company in an increasingly competitive marketplace.

REFERENCES:

- [1] Why Is Risk Management Important to Project Success?, Small Business, Business Planning & Strategy, Risk Management, ByTara DugganUpdated February 19, 2019
- [2] Risk Management for Research and Development Projects, Harsha Rodage, CSU – East Bay, Hayward, CA, Howard Lei, CSU – East Bay, Hayward, CA - Farnaz Ganjeizadeh, CSU – East Bay, Hayward, CA International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, Vol. 3 Issue 10, October- 2014
- [3] Project Risk Management, Processes, Techniques and Insights, Chris Chapman, Stephen Ward, second edition