



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

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Section

Master

Date

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Course Code

(PMG510)

Project Risk Management

Instructions:

- اخر موعد للتسليم هو يوم الخميس 2021-05-20 في تمام الساعة ٩ مساءً.
- الإجابة متاحة باللغة الإنجليزية أو اللغة العربية مع مراعاة أن تكون المصطلحات العلمية باللغة الإنجليزية.
- 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 **each 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 project. 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 بكل مرحلة من مراحل المشروع, تحضير مصفوفة احتمالية المخاطر ومن ثم القيام بالتحليل لهذه المخاطر المختارة. مهمتك هي تحضير خطة متكاملة لإدارة المخاطر تشمل التعريف بالمخاطر المحتملة التي تحيط بكل مرحلة من مراحل مشروعك (نفس المشروع الذي اخترته في مادة إدارة المشاريع المتقدمة Advanced project management). ومن ثم القيام بتحديد 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 بكل مرحلة 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) للاحتمالية 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..

Table of Contents

1. Introduction.....	5
2. Literature Review	5
3. Risk Identification	6
4. Risk Assessment	7
4.1 Risk Severity Matrix.....	9
4.2 Risk Response Matrix.....	9
5. Results and Discussion.....	11
6. References.....	11

1. Introduction

Risk Identification and analysis is an important part in the project management practices. With proper and accurate risk Identification and analysis, a project will succeed. I had a chance to work on big project not as a project manager but as one of the team members in that project. The project that is considered in this risk Identification and analysis project is to enhance and improve the Enterprise resource Planning (ERP) system in my work. Including risk management plan that identifies potential risks in the project and identify risk management strategies.

Project Name

ERP system improvement and support.

2. Literature Review

Enterprise resource planning (ERP) refers to a software or application that are used to manage and automate everyday business activity. Maintaining and upgrading the current ERP systems allow you to easily improves business processes and workflow that are based on best practices. The automobile application parts Beta Manufacturing has been considered for this IT project implementation. The company was facing issues in managing inventory of assets that are developed. The distributors order these products on phone and sometimes few orders get missed and are not delivered at right time. Hence, the management has decided to automate all its processes by implementing SAP ERP system in the organization with an integrated mobile application (Junnarkar and Verma, 2017). Therefore, the new ERP systems improved and enhanced the processes in that enterprise. These security mechanisms will be implemented with the discussion with the project sponsor i.e top management of the Automobile company (Marri, 2014). Project planning is an important part in the project management practices. With proper and accurate planning, a project can succeed. Many other factors are responsible for the project to be completed within the scheduled time and estimated budget (Naeem & Khanzada, 2018).

3. Risk Identification

The main risks with deferent likelihood and impact that can occur in this IT project such as following:

3.1 Scope not properly defined:

Sometimes, the project scope does not cover all business requirements. This happens because some communication gap in collection of business requirements. Hence, a proper way must be planned for gathering business requirements from stakeholders.

3.2 Poor Leadership:

When project manager is unable to lead the project, the conflicts among team members can occur. It may cause the project failure. In order to avoid the good leadership qualities are required by the project manager to effectively lead the project.

3.3 Over-Estimated:

The project may get over burdened when the budget gets exceed as the estimated budget. The expenditure must be monitored during the project execution process.

3.4 Insufficient Project Management Planning:

When the project planning is not done properly, it may get delayed as team roles are not properly defined. Also, it will lack in scheduling the project.

3.5 Insufficient Resources:

The project may get fail because of insufficient resources.

3.6 Project delay:

When the project gets delay as per the scheduled time, it may get fail. Hence, the project manager must monitor the project execution process.

4. Risk Assessment

RISK ID	RISK TITLE	RISK DESCRIPTION / IMPACT / CAUSES	RISK CATEGORY	Probability	Project Impact
1	Project Scope	Sometimes, the project scope does not cover all business requirements. This happens because some communication gap in collection of business requirements. Hence, a proper way must be planned for gathering business requirements from stakeholders.	Operational	8	This can impact on the quality of the project
2	Poor Leadership	When project manager is unable to lead the project, the conflicts among team members can occur. It may cause the project failure. In order to avoid the good leadership qualities are required by the project manager to effectively lead the project.	Operation	3	Again, quality will be impacted because of poor leadership.
3	Over Budget	The project may get over burdened when the budget gets exceed as the estimated budget. The expenditure must be monitored during the project execution process.	PM Planning	9	The cost of the project will get increase.

4	Lack of Resources	The project may get fail because of insufficient resources.	Operational Risk	3	The existing resources will get over-burdened
5	Insufficient PM Planning	When the project planning is not done properly, it may get delayed as team roles are not properly defined. Also, it will lack in scheduling the project.	Project Management	9	It can increase the timeline of the project.
6	Project Delay	When the project gets delay as per the scheduled time, it may get fail. Hence, the project manager must monitor the project execution process.	Operational Risk	2	The project will get delayed.

4.1 Risk Severity Matrix

Impact	9-10	Poor Leadership	0	0	Project Scope	0
	7-8	0	Project delay	0	Budget	Lack of PM Planning
	5-6	Lack of resources	0	0	0	0
	3-4	Project delay	0	0	0	0
	1-2	2	0	0	0	0
		1-20%	21-40%	41-60%	61-80%	81-100%
		Probability				

red - High
Yellow - Medium
Green - Low

4.2 Risk Response Matrix

Risk Event	Response	Contingency Plan	Trigger	Responsible person
Project Scope	Initial Requirements	The project manager must develop project scope correctly.	Project requirements are not gathered correctly	Project manager
Poor Leadership	Project manager with good leadership qualities	The PM must have good leadership qualities to effectively manage the project team.	The PM doesn't have leadership qualities	Project manager

Over Budget	Project estimation	The project must be estimated correctly and PM must monitor the expenditure during project execution.	The expenditure is not monitored	Project team
Lack of Resources	Strategy for resource usage	The PM resources must be selected during initial phase.	Resources are not properly selected	Project team
Insufficient PM Planning	PM Plan document in advance	PM document must be prepared and approved from the project sponsor.	The PM Plan document is not prepared	Project manager
Project Delay	Correctly scheduling of the project	The project activities must be monitored during project execution process.	The scheduled time is not correctly estimated	Project manager

5. Results and Discussion

The success of the project will be evaluated in terms of following factors:

- The project is completed with the scheduled time.
- The identified risks either avoided or mitigated.
- The project achieved stakeholders' requirements and client is satisfied with the project.
- The project is completed within the budget and time.
- The project scope is satisfied within the project.

6. References

Junnarkar, A., R. and Verma, A. (2017). STUDY ON SYSTEM APPLICATION PRODUCT (SAP) – AN IMPORTANT ENTERPRISE RESOURCE PLANNING TOOL FOR ACHIEVEMENT OF ORGANISATIONAL VISION, MISSION AND OPERATIONAL PERFORMANCE. International Research Journal of Engineering and Technology (IRJET) Volume: 04 Issue: 02 | Feb -2017. Retrieved from - <https://www.irjet.net/archives/V4/i2/IRJET-V4I2413.pdf>

Marri, K., A. (2014). ERP implementation in the project-based organizations of the construction industry. The Business & Management Review, Volume 4 Number 4

Naeem, S. & Khanzada, B. (2018). Impact of Project Planning on Project Success with Mediating Role of Risk Management and Moderating Role of Organizational Culture. International Journal of Business and Social Science Volume 9, Number 1, January 2018. Retrieved from - https://ijbssnet.com/journals/Vol_9_No_1_January_2018/10.pdf