



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 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 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 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 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..

Risk of Implementing Datacenter Capacity Management System

1. Introduction:

The area of work in my professional front deals with a lot of significant projects that are undertaken to enhance the adaption of the existing assets the organization owns. One of the key functions to help realize this goal is Capacity and Demand Management process. This is the process of managing risk to ensure server availability, optimal utilization and forecasting of the required infrastructure and computing resources to meet the current and future demand of a company's business units in a cost-effective manner. Will discuss the risks related to Implementing Datacenter Capacity Management System.

2. Methodology

We will go through a process like 8Rs and 4Ts, to help ourselves finding the risk's probabilities and its impacts. Brainstorming is the first step to identify all the possible risks. We will make a list of them.

a. Table 1

No.	List of Risk
1.	Technical Team Availability (On board)
2.	To implement on time (to avoid any delay of going on production)
3.	Define the impacted systems (no missing systems might be impacted)
4.	Integration with other systems (ensure integration methodology applicable)
5.	User experience (not friendly)
6.	User Acceptance Test (UAT) scenarios

Now we have a list of risks, we will make a risks matrix (determine the probability and impact of each risk), which will go after that to risk register. (Low = 0 to 0.29, Medium = 0.3 to 0.69, High = 0.7 to 1).

a. Table 2

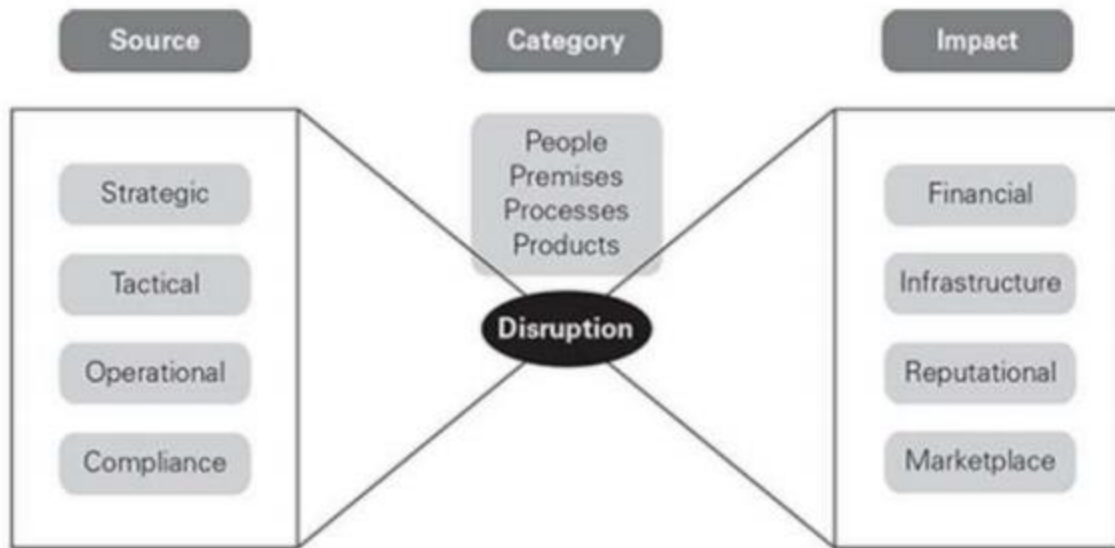
No.	List of Risk	Probability	Impact
1.	Technical Team Availability (On board)	0.2	0.8
2.	To implement on time (to avoid any delay of going on production)	0.4	0.2
3.	Define the impacted systems (no missing systems might be impacted)	0.3	0.3
4.	Integration with other systems (ensure integration methodology applicable)	0.4	0.8
5.	User experience (not friendly)	0.2	0.8
6.	User Acceptance Test (UAT) scenarios	0.8	0.8

After collecting and evaluating the risks, it time to evaluate the severity to start thinking about the response plans for each risk and try to mitigate the impact. For calculating the severity, we used Risks Matrix and Bow-Tie to find the response plan.

a. Figure 1

Probability	0.71-1	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		

b. Figure 2



c. Table 3

No.	List of Risks	Probability	impact	Severity	Response plan	Mitigate Action
1.	Technical Team Availability (On board)	0.2	0.8	Medium	Assign the technical team ahead of time	Apply multi shifting mechanism
2.	To implement on time (to avoid any delay of going on production)	0.4	0.2	Low	Communicate the implementation plan and set the expected requirement from each stakeholders	Try to get sponsor approval on extending the production date
3.	Define the impacted systems (no	0.3	0.3	Medium	To collect all the systems in the	To apply for Change

	missing systems might be impacted)				environment and define the impacted ones	Request (CR)
4.	Integration with other systems (ensure integration methodology applicable)	0.4	0.8	High	To analyze all collected related systems and ensure the capability of integration	Find alternative solution like migration for example
5.	User experience (not friendly)	0.2	0.8	Medium	Select Subject Matter Experts (SMEs) from the Business Users to test the user interface during the Test environment stage	Collecting the users comments and feedback and do the required changes
6.	User Acceptance Test (UAT) scenarios	0.8	0.8	High	To get approval on the UAT scenarios ahead of time from all stakeholders (Testers)	Accepting the minor changes or apply for (CR)

d. Table 4

Here we are going to calculate the EMV cost for our system implementation. All the numbers you are going to see are not real cost but it is evaluated based on similar experience.

No.	Risk	Probability	Impact Cost SR	Risk Contingency
1.	Technical Team Availability (On board)	0.2	3000	500
2.	To implement on time (to avoid any delay of going on production)	0.4	2000	500
3.	Define the impacted systems (no missing systems might be impacted)	0.3	3000	1000
4.	Integration with other systems (ensure integration methodology applicable)	0.4	200	50
5.	User experience (not friendly)	0.2	3600	600
6.	User Acceptance Test (UAT) scenarios	0.8	5000	4300
	Total		16800	7450

3. Results

The total potential impact on the plan is 16800 SR, while the contingency cost is 7450 SR.

4. Discussion

In (Table 3) we can see the result of reporing plan and how to mitigate the risk. It is important to note that we should be aware of all risks but shouldn't waste the time on risks with green color, it is better to focus on orange and red risks because they have higher probability and huge impact.

In (Table 4) we can see the result of the risks cost on the budget. The higher number was for User Acceptance Test (UAT) scenarios, so it has the higher priority. There are some risks that you should be careful from them like To implement on time, Define the impacted systems and Integration with other systems. They will drag money from the budget.

Adding more on the professional front, the team I lead is not only responsible for successful asset management strategy and execution but is primarily responsible for governance of all asset hardware within the organization. My team dedicatedly works on various governance aspects like compliance, risk assessment and management, performance monitoring of various initiatives, supporting internal audits and management reviews and lastly, close all these points with relevant asset owners in a way that is acceptable and in line with organizations initiative.

The team under my guidance works on the following aspects around risk management and performance improvement across the organization:

Risk Management:

- Contribution in identifying comprehensive risk analysis and risk management measures to support business continuity, cyber security, executive decision-making, performance improvement, and prioritization of resources.
- Consulting and suggesting the levels and quality of service objectives and defining risk thresholds and parameters for each asset category
- Identify and agree on various risks arising out of internal and external sources and support in documenting risk mitigation procedures which includes identifying

risk, assessing the risks and quantifying the impact of the risk and grade them accordingly.

- Ensure compliance to all applicable local, environmental, data governance regulations and adhere to their compliance.

Performance Management:

- Establish performance metrics and other associated KPIs to measure the performance of assets across categories and communicate it with relevant owners
- Provide consultations around developing and implementing processes to develop those metrics and KPIs.
- Evaluate data related from various asset management systems used to evaluate its compliance with organisational objectives.
- Ensure adequate documentation around asset management to make informed decisions about technology upgrades, technical and financial consistency.

Compliance and Audit:

- Represent technology architecture general department for internal audits that takes place at a planned interval to ensure the adequacy and applicability of asset management systems and work on any observations they raise. The scope of the internal audit focusses around:
 - Review of monitoring mechanisms and implementation
 - Review the sector policies, procedures and standards.
 - Review of technology architecture (covering data, application, infrastructure and assets governance) and all its components.
 - Review of hardware and software assets governance (documentation, tools and activities)
 - Review of alignment with other assurance functions such as Cyber Security, Enterprise Risk Management (ERM) and Corporate Analytics & Data (CAD)

- Design continuous improvement programs as per the findings of the audit and monitor the progress around these initiatives
- Highlight the findings to senior management and socialize the impact of the risks associated with observations and obtain buy-ins to commission programs to mitigate them.
- Develop and implement the processes and procedure to deal with non-compliance including criteria for investigation and actions.

My team successfully executed various criteria from above in their day to day operations and as a section manager, my responsibility lies in guiding them in their initiatives and ensuring all the actionable items have been executed and produce desired outcomes.

5. References

(Paul, Hopkin) Fundamentals of Risk Managment (5th Edition)