



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 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..

Risks associated with Project of Creating and building E-commerce Training website

Omar Alghamdi, May 17, 2021
Everyone University

Introduction:

Risks are around us and everywhere in our life. It is something that cannot be ignored. Every project in the world has its own risks that are associated with it. These days one of the risks that has a high impact on the world economy and people life is the pandemic of covid 19. Due to worldwide pandemic covid 19 and the new technologies like the 4th Generation of cellular networks and the optical fiber of the internet, the use of the websites and apps increased significantly. One of the website types that faced a huge demand is E-commerce websites in particularly (training websites). As Project manager assigned at the initiation phase of the project life cycle in a project of building and creating a modern E-commerce website to provide a professional training and valuable information in different fields and sectors. To be able to carry out the project of creating and building a website successfully, the risks and their triggers that are associated with the identification and describing of the project purpose, scope and objectives must be identified and analyzed in efficient way to take the proper responses and controls. The project was selected using a sacred cow method by the Sponsor. One of the essential parts in the project's success is the proper defining, describing and managing of the risks of the project which will have an impact on the quality of the deliverables of both the project and product on different aspects such as scheduled, time and budget. on the other side, Unproper defining of these risks in any project will reduce the probability of the project to be success. This study will discuss:

-The best processes, tools and techniques used to identify and describe risks associated with the project of creating a modern E-commerce website for training.

Literature Review:

The aim of the literature review is showing some studies that discussing the best tools, techniques to identify, describe and manage risks. A better understanding of different terminologies and the distinction between them in risk management can increase the possibility of project success. In addition, the sequence of the project management activities, in general, is core to understand where we are and what must be done in order to complete the required activities to come up with the expected output.

Risk Vs hazard vs Risk Management:

To clarify the misunderstanding that may occur for many people when they heard the terminologies risk, hazard, and risk management the differences between the terminologies will be mentioned. according to (Hopkin, 2018), by several organizations like the following in the below table:

Organization	Definition of risk
ISO Guide 73	Effect of uncertainty on objectives. Note that an effect may be positive, negative, or a deviation from the expected. Also, risk is often described by an event, a change in circumstances or a consequence.
Institute of Risk Management (IRM)	Risk is the combination of the probability of an event and its consequence. Consequences can range from positive to negative.
Orange Book from HM Treasury	Uncertainty of outcome, within a range of exposure, arising from a combination of the impact and the probability of potential events.
Institute of Internal Auditors	The uncertainty of an event occurring that could have an impact on the achievement of the objectives. Risk is measured in terms of consequences and likelihood.

hazards we can look at them according to (Boyle, 2002), In some concomitances all the things, people, activities and other things that can be managed can be hazard. This is one of the issues of identification hazards that there will be large number of hazards identified (Boyle, 2002). While Risk Management according to (Morgan, 1990) process consist of steps is taking to assess the risks to take the proper action either by eliminate or reduce them through the control measures.

Risk Matrix

Risk matrix is one of the popular tools in risk management that used during the risk assessment to evaluate the level of the risks by looking at the exposure level to the risk against the impact of the risk when it is occur.

Methodology:

The risks within the project of creating a modern E-commerce website for training were investigated. The method was adopted in this study is a quantitative- approach using Risk matrix to evaluate the risks. The risks assessment was conducted for the inherent level. The Number of risks were found is 6. For every risk the following information is showing within the risk table:

- The description of the risks.
- The reason for considering them as risks.
- Whether the risks are internal or external.
- Do the risks have a negative or positive impact?
- The probability of the risks estimated in quantitative and qualitative way.
- The Impact of the risks estimated in quantitative and qualitative way.
- The Expected Monetary Value (EMV).

Risk Matrix:

The Scale that used to evaluate the risks is scale with five levels as shown below:

		Impact				
		Very Low (0.2)	Low (0.4)	Medium (0.6)	High (0.8)	Very High (0.9)
Probability	Very High (5)	Very Low 0.198	Low 0.396	Medium 0.594	High 0.792	Very High 0.9801
	High (4)	Very Low 0.16	Low 0.32	Medium 0.48	High 0.64	High 0.792
	Medium (3)	Very Low 0.12	Low 0.24	Low 0.36	Medium 0.48	Medium 0.594
	Low (0.4)	Very Low 0.08	Very Low 0.16	Low 0.24	Low 0.32	Low 0.396
	Very Low (0.2)	Very Low 0.04	Very Low 0.08	Very Low 0.12	Very Low 0.16	Very Low 0.198

0-0.2	0.2-0.4	0.4-0.6	0.6-0.8	0.8-0.99
Very Low	Low	Medium	High	Very high

What is the Risk (Event) ? ماهو الخطر	Why do u consider it (Event) risk? لماذا تم تصنيفه على أنه خطر	Is the Risk Internal Or External هل الخطر داخلي أم خارجي للشركة	Is the Impact Positive or Negative ? هل الخطر يؤثر إيجابيا أم سلبيا	What is it probability (Likelihood, Occurance, Exposure)? ماهي احتمالية وقوع الخطر بالوصف	What is it probability (Likelihood, Occurance, Exposure) ?(quantitative) ماهي احتمالية وقوع الخطر بالأرقام	What is the level of Impact ماهو مستوى الخطر وصف	What is the level of Impact (quantitative) ماهو مستوى الخطر بالأرقام؟	Impacted Objective (The Nature Of Impact) الأهداف المتأثرة
The difintion of project purpose is not written in a clear way,that may leds to wasting time	Because this will affect the accuracy and the precicios of the estimation of the next activities.	Internal	Negative	Low	0.2	Very High	0.8	Financial
						Very low	0.1	Infrastructure
						Medium	0.4	Reputational
						Low	0.3	Marketplace
						Medium	0.4	People
						Medium	0.4	Assests(Processes)
						Medium	0.4	Product Quality
The project purpose is written in wrong way that may affect the participation of the participatnts in meeting	Because this will affect the accuracy and the precicios of the estimation of the next activities.	Internal	Negative	Medium	0.4	Very low	0.1	Environment
						Very High	0.8	Financial
						Very low	0.1	Infrastructure
						Medium	0.4	Reputational
						Low	0.3	Marketplace
						Medium	0.4	People
						Medium	0.4	Assests(Processes)
Missing writing the scope of the project during the meeting	Because this will affect the estimation of the other activities and will increase the probability of the project to be failed	Internal	Negative	Very high	0.8	Medium	0.4	Product Quality
						Very High	0.8	Financial
						Very High	0.8	Assests(Processes)
						Very High	0.8	Product Quality
						High	0.7	Environment
						Low	0.3	Marketplace
						Very High	0.8	People
The objectives of the project is not written as smart objectives	Because this will affect linking the activities of the project to its objectives which may led to lack of monitoring the project success	Internal	Negative	Meduim	0.5	Very High	0.8	Assests(Processes)
						Very High	0.8	Product Quality
						High	0.7	Environment
						Medium	0.4	Financial
						Very low	0.1	Infrastructure
						Low	0.3	Reputational
						Medium	0.4	Marketplace
indiviuals may add features to the product that were not approved	Because it will add more work to the team that is not requird and consum cost and time	Internal	Negative	High	0.6	High	0.7	People
						High	0.6	Assests(Processes)
						High	0.7	Product Quality
						Very low	0.1	Environment
						Very High	0.8	Financial
						Very low	0.1	Infrastructure
						High	0.7	Reputational
Requirment may not be properly analyzed and understood	Because it will consum cost and time of the team	Internal	Negative	Low	0.2	Low	0.3	Marketplace
						Medium	0.4	People
						Medium	0.4	Assests(Processes)
						Medium	0.4	Product Quality
						Very low	0.1	Environment
						Very High	0.8	Financial
						Very low	0.1	Infrastructure

Contingency budget:

What is the Risk (Event) ? ما هو الخطر	What is it?(quantitative) ما هي احتمالية وقوع الخطر بالأرقام	Cost of Impact (IC) (quantitative) تكلفة التأثير (الكمي)	Risk Contingency (P*IC) = Expected Monetary Value (EMV) \$	The strategy or Policy does the company use to manage the risk? الإستراتيجية المتخذة لإدارة هذا الخطر
The definition of project purpose is not written in a clear way, that may lead to wasting time	0.2	\$500	\$100	A template will be used to gather all the inputs of the project charter beside a check list to ensure information is available in a clear and efficient way
The project purpose is written in wrong way that may affect the participation of the participants in meeting	0.4	\$700	\$280	A template will be used to gather all the inputs of the project charter beside a check list to ensure information is available in a clear and efficient way
Missing writing the scope of the project during the meeting	0.8	\$1,500	\$1,200	A systematic way will be used in the system of the company to ensure the all the vital elements of the project charter are exist and not missing, beside of that using a check list to ensure information is available in a clear and efficient way
The objectives of the project are not written as smart objectives	0.5	\$300	\$150	Review the objectives periodically of the project more than one time and compare to the standard criteria for the smart objectives. In, addition Sending the objectives to all the parties related to the project.
individuals may add features to the product that were not approved	0.6	\$500	\$300	A systematic way will be used in the system of the company to ensure the all the product features and requirements of the project are exist and not missing, beside of that using a check list to ensure information is available in a clear and efficient way and sending the list of features and requirements to all the related parties for revision.
requirements may not be properly analyzed and understood	0.2	\$400	\$80	A periodic meeting will be conducted with all the related parties to the project to ensure the all the product features and requirements of the project are exist and not missing, beside of that using a check list to ensure information is available in a clear and efficient way and sending the list of features and requirements to all the related parties for revision.
		\$3,900	\$2,110	Total Cost

Result and discussion:

Risk management is very important area of knowledge that increases the probability of the projects to success. Applying one of the tools that is used in risk management which the risk assessment using risk matrix helped us to use a pro-active approach to think and prepare our selves for what could be happen during the project. The risks are showing in the tables are some of the risks that are known and could be happen and there are still risks that are unknown. There is a still area for improvement the tools of risk management.

References

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