



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:

- آخر 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 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. وإن 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 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.

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..

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Poultry Farm's Project Risk Management

1.0 The Introduction

In this project we will be identifying and responding to the risks involved in budgeting and constructing a Poultry farm construction. Our project is based on budgeting which is why risk management is very important to complete the project within the budget and schedule. In this project we have identified potential risks and its likelihood and impact on cost escalation.

Project carries many different risks, that could be either business risks, non-business risks or financial risks. Risks can affect the project either adversely or favorably. Risk is uncertain events which can be anticipated but the occurrence depends upon the probability. (PROJECT-MANAGEMENT.COM, 2021). Risk could be internal or external in a project which need to be identified and responded. Project risks are varying at different level of the project, project at planning stage carries risk of wrong design but later on construction risks arise when project started. After completion of the construction then there are risks of operation. Each level should be carefully dealt with (McHale).

2.0 The Business Risks in poultry farming project

1 – Risk of Disease: The poultry farming is highly exposed to the disease which spread quickly and it is often seen that birds in a farm do not survive any virus which killed hundred of birds in a quick span of time. This risk could be occurred due to many reasons, like poor weather, unsuitable feeding and list goes on. This is such a serious risk which could be dangerous for the operations of the farming and it occurs it could be significant for the project cash flows.

2 – Project's Purpose Risk: The purpose of the project in itself a serious risk for the project operations. New project initially is unlikely to produce enough cash flows and income to share the dividend twice a year and generate income for community as it seems that there are many shareholders in this project due to its nature. If project do not generate the required income, it will be considered a failure of the project.

3 – Project's Target: The project objective to capture the market shares of 60% & 87% in first and second year respectively seems to be very risky, because the poultry farming is a general business and there will be many existing competitors. The existing competitors have already achieved the market share and they must have stable logistic and other operations in place in such scenario the market share assumption for the new entrant is over optimistic. This is another high risk.

4 – Cyber-attacks: The project team will communicate online each weekend, there is a risk of hacking & other malfunctions which could disrupt the communications and decision-making ability of the project members. Project's communication and monitoring tools are always at risk of cyber-attacks and financial loss.

3.0 Non-Business Risks of the Project

1 – Government's Policies: Government from around the world significantly changes the policies regarding farming and agriculture which could affect the project adversely if there is anything more stringent rules are placed. Changes in policies often result in additional cost to the business which can put pressure on the project cash flows

2 – Inflation and Economic Instabilities: As we are witnessing a pandemic which have affected adversely almost all the sectors of the business. Individuals have lost jobs and employments which result in less spending. In such conditions people might decrease the usage of eggs in their daily life to cover their losses and save money as much as possible. Despite the eggs are basic necessity but when there is economic instability all the businesses will be affected.

4.0 The Financial Risks of the Project

1 – Budgeting: The budget techniques are based on assumptions and forecasting. Anticipating the future is always high risk due to uncertainty. Almost all the budgets miss their targets which universally accepted judgment. The impact could be significant.

2 – Cost Escalation: There is a risk of cost inflation which will increase the project cost overall and the impact of this risk will be significant.

5.0 Literature Review / Search Method

There are many risk managements approaches all of them have their own advantages and disadvantages. Here we are adopting the 7Rs & 4Ts, this approach is considered to be very effective and resilient to changes (NWH-UK). According to the aforesaid method not all the risks can be avoided or eliminated but they are certainly can be mitigated, reduced or transfer.

(PXP-Financial, 2021)

Tolerate	If the impact is low	If Probability is low
Terminate	If Impact is Severe	If Probability is High
Treat	If Impact is Low	Probability is High
Transfer	If Impact is High	Probability is Low



6.0 Risk Mitigation & Methodology

Risk identification and mitigation process solely depend upon the judgment of the project team, sooner the risks are identified adequate the response would be. Project team members should identify and categorize the risks as per their professional observation. Project team lead should clearly demonstrate the risk identification and communication with the project team members and proper risk register should be maintained (The-NAP, 2020). All the qualitative and quantitative risks should be narrowly observed and responded to complete the project with in due time and budget.

Risk Probability	Impact	Rating
0.05 -	Very Low	A
0.10	Medium	B
0.30 +	Very High	C

Values can be assigned as shown below.

	Probability				
Criteria	Very Low (1)	Low (2)	Medium (3)	High (4)	Very High (5)
Cost	<5% chance	5% chance +	10% chance +	20% chance +	30% chance +
Schedule	<5% chance	5% chance +	10% chance +	20% chance +	30% chance +
Scope	<5% chance	5% chance +	10% chance +	20% chance +	30% chance +
Quality	<5% chance	5% chance +	10% chance +	20% chance +	30% chance +

	Impact				
Criteria	Very Low (1)	Low (2)	Medium (3)	High (4)	Very High (5)
Cost	<5% increase	5% increase +	10% increase +	20% increase +	30% increase +
Schedule	<5% increase	5% increase +	10% increase +	20% increase +	30% increase +
Scope	<5% increase	5% increase +	10% increase +	20% increase +	30% increase +
Quality	<5% decrease	5% decrease +	10% decrease +	20% decrease +	30% decrease +

The ranking of the risk is provided on the basis of the probability of the risk and its potential impact in the following table.

SR#	RISK	PROBABILITY	IMPACT	RANKING	ACTION (4TS)
1	Risk of Diseases	0.40	High	C	Treat this risk by taking measurements like insurance of stock
2	Risk of Project's Purpose	0.20	High	B	Terminate, by slight changes to project's purpose, share dividend once a year
3	Risk of Project's Target	0.40	Medium	B	Treat, by revising the targets
4	Risk of Cyber-attacks	0.10	Medium	A	Transfer, hire software company for protection
5	Risk of Government's Policies	0.10	Low	A	Tolerate
6	Risk of Inflation and Economic Instabilities	0.10	Medium	A	Tolerate
7	Risk of Budgeting	0.40	High	C	Treat, reduce the risk by creating contingencies
8	Risk of Cost Escalation	0.10	High	B	Tolerate, cost do escalate

The risk mitigation approach is always depending upon the behavior of the project team leader. Risks can be reduced or transfer to many ways like insurance and hiring professional like IT experts to avoid cyber-attacks on the IT system. Some external risks may not be reducible or avoidable.

As shown below, the matrix helps identify the magnitude of risks.

		Impact				
		Very Low (1)	Low (2)	Medium (3)	High (4)	Very High (5)
Probability	Very Low (1)					
	Low (2)					
	Medium (3)					
	High (4)					
	Very High (5)					

7.0 EMV Calculation

Risk	Probability	Cost	Contingency Cost
Buying Cement	0.20	\$1200	\$240
Roof Timber	0.10	\$1300	\$130
Iron Sheet	0.20	\$750	\$150
Doors	0.10	\$500	\$50

There is risk of cost escalation of the significant items which are not yet started.

8.0 Discussion & Result

The in-depth analysis of the project shows that there some inherent risk which every project carries. However, there are some serious risks identified which required management responses and it needs to be dealt timely like project purpose and target and safety of the stock. These threats are imminent and proper responses should be provided. The budget needs to be monitored regularly and comparison of actual versus budget expenses must carried where variances need to be calculated.

References

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