



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 الخميس 2021-05-20 في تمام الساعة 9 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 **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 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 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 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..

Project Risk Management

Introduction:

Risks are facing any business. However, the coffee shop business meets very unusual risks. The most critical risk is the clients' varying tastes. Another is the economy. Coffee shops are based greatly on serving people who have expendable earnings. When the economy suffers a downturn, people reduce their spending priorities. They don't go to coffee shops.

A problem also in Coffee shops is finding reliable help who will continue with the business. Many Coffee shop workers tend to be younger and are trying to move into a better job. When they finish school or find their "dream job," they leave the coffee shop. Often servers choosing the jobs are non-skilled and tend to be single mothers or lower trained people. These characters come with particular conditions which must be considered by management. A single mother may feel child-care problems, or a bus person may have difficulties with reading. A good owner must learn to deal with these problems in a way that benefits the business and the worker.

About Me:

I'm Sarah, welcome to my coffee shop" COFFEE MUG". Here you'll find our adventures in running a coffee shop.

It's said that starting a business isn't significantly about *taking* risks but *managing* estimated risks for the greater purpose. It begins by identifying possible risks and brainstorming how to creatively overcome them in a plan. Explore all of what could go wrong to improve protection from these challenging and risky situations. Ask yourself how you would overcome these challenges should you face them. Here are some essential things to think through as a hopeful coffee shop owner:

Should you have your own business? Are you ready to put in the time and effort required to build your business, acquire the skills you'll need, and do your best to be successful?

Do you know your business, including the modern and future trends, and how they'll affect your business? How are you placed to meet these trends?

How about competition? What will make *you* successful and distinct from others?
Do your products appeal to your particular target market? What are the necessary market groups you're trying to choose?

Unexpected risks that may stop or delay your coffee shop:

- * Pandemic lockdown, floods, hurricanes, fire, or a local emergency – it soon causes loss problems.
- * Machine breakdown - damage of refrigeration, or breakdown of important equipment, eg. coffee machine
- * Inexperienced staff causing machinery breakdown or loss of goods from bad preparation or contamination
- * Failure to have licensing regulations, leading to fines or closing.

What's your Plan B if there's a disaster or accident? It can be having duplicate supplies. If you're in a city that faces flooding, look at what could happen if the water got into your coffee shop. If a fire is a threat, what is the case of emergency equipment? If staff performance is the problem, much training and access to instruction manuals will be important.

Machine maintenance and updates are necessary to protect from accidental failure. A good relationship with repair services will be helpful.

Risks Related to Employees

- * Loss of an important person (chef or supervisor)
- * Staff incapable of coming to work because of transport problems or accidents.
- * Staff can't handle client needs and service needs
- * Unable to find staff because of workers shortages.
- * Long working hours for important staff leads to bad performance or leaving
- * COVID-related problems cause staff absence because of illness or quarantine

There's no one solution for these several problems, but they highlight the importance of having firm people-management policies. It starts with bringing the best staff, and there

should be strong recruitment, employees, communication, and team management systems in place.

Risks Linked to Food, drinks, Cooking, and Service

- * Wrong food storage or preparation, making illness or poisoning
- * Poor sanitation and hygiene, leading to loss of property and food safety problems
- * Corrupt employees who steal money, food, or drinks
- * Careless work practices that cause loss of food, drinks, and other goods.
- * Bad fire control systems, leading to fire and destruction of equipment or the entire building

Risk category	Possible negative risk areas	Possible positive risk areas
Strategy	• Business performance • Investor relations • Communication of strategic direction set by board • Joint venture management	• Planning • Target setting, vision and goals • New business opportunities • Strategy development • Management activity
Human resources	• Remuneration and entitlements • Workplace industrial relations • Employee safety and health • Employment practices • Performance incentivisation	• Workers compensation • Diversity • Recruitment and retention • Communication • Skills availability, training and development
Information technology	• Data security • Service maintenance • Sharing of classified information • Data management	• Service delivery • System development and new systems • Data integrity • Availability
Marketing	• Image and reputation	• New products

	• Customer service • Obsolescence • Competitive positioning • Product liability	• Project management • Research and development • Trademarks • pricing and costing
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Risk identification and categorization

Risk response planning

There are many risks my Coffee Shop business faced during the project growth process. These risks required solid plans that will provide to overcome them that ensure they do not affect the business negatively.

First, careful planning and classification of options. Through careful planning, it will be easy to recognize the risks that face the business. The identification of risk will result in their awareness (Aven, 2015). The implementation of the options will help the progression of the project which will see the project come to an end successfully.

Secondly, availability of finances avails enough supplies; the project management will have sufficient financial support that will enable them to overcome most of the problems that will be expected.

LITERATURE REVIEW:

Risks involve risk of loss, risk of volatility, and risk of missing opportunities (Labombang, 2011). The management structure in an organization is focused on strategic, operational, writing, and agreement goals. Hence, the risk is a change in things that may happen normally or the chance of threats to business and financial interests caused by the existing threats (Leonardus, 2009).

First, the strategic aim is to promote the vision and mission of an organization.

Second, the operational aim is the use of effectiveness and performance from the available sources.

Third, the reporting aim is internal and external articles that can be trusted and depended upon.

And fourth, the compliance aim is different laws and regulations of compliance.

Concerning activities in the coffee shop area, the occurred activity process has included related parties directly or indirectly. Operational risk may cause losses immediately or indirectly such as the loss of the possible opportunity in a way to achieve it. Besides, operational risk can also cause losses that are difficult to measure materially. The process risk part is caused by the loss of available systems, weak monitoring, and poor coordination between units and mechanisms. The human risk part can be caused by carelessness in work, and poor competence, and the number of workers. The system risk part is caused by network communication failures, program mistakes, and viruses. Also, external factors are caused by natural disasters, protests, and floods.

The risk management process has several stages which include:

- 1) Risk classification by analyzing risk sources;
- 2) Risk analysis by estimating the possible risks and arising risks;
- 3) Plan of action by performing further plans; and
- 4) Control by estimating, controlling, managing, and ensuring that management plans remain connected (McNeil et. al., 2005).

RESULTS AND DISCUSSION

Risk management is the approach adopted to recognize, identify, and evaluate risks in a project (Joni & Putu, 2012). Besides, it pays attention to what must be done to the arising influence and the chance of transferring risk to other parties or how to overcome the existing risks.

The purpose of risk management is to identify risks in a project and improve strategies to decrease or even avoid them. On the other hand, it also tries to find ways to broaden the existing opportunities.

To recognize risks, it must answer questions about what is included in risk and why? ,and what kinds of risks have an impact on the project?

Generally, the main sources of business risk are:

- 1) Physical damage or destruction due to fire, earthquake, flood, and disaster;
- 2) Environment: ecological destruction, pollution and waste treatment, and research of the condition of the community;

- 3) Design: a new technology, new applications, inspections, safety and security, and design interactions with construction methods;
- 4) Logistics or material destruction: the destruction of road equipment, limited resources, and organizational separation;
- 5) finance: availability of supplies and plenty of protection, provision of sufficient cash flows, damages caused by architects, changes in supplier exchange rates and increase, taxes, interest rates, and loan costs;
- 6) Operation: market fluctuations for goods and services, maintenance requirements, reliability, safety, and management

Effective risk analysis must consider the following matters:

- 1) Analysis must concentrate on direct financial loss instead of service disruption or death and damage;
- 2) Doubt in each estimation of payment must be measured;
- 3) The accuracy of the analysis must be depended on data accuracy; and
- 4) Costs and efforts for analysis must be as low as those that can be received by the business budget (Tjakra & Sangari, 2011).

The first is operational risk. Based on our research findings, the types of affecting risks are human resources, assets, information, technology, and natural events. It includes:

- 1) The effect of human resources on risk caused by workers deliberately or unintentionally which harm the company;
- 2) The effect of assets on risk created by damaged and unsuitable material that is caused deliberately and accidentally by the workers so that it harms the company;
- 3) The effect of information technology on risks caused by broken hardware and software that are done deliberately and accidentally by workers that harm the company; and
- 4) The effect of natural events on risks caused by natural situations so that they harm the company.

The second is marketing risk. Based on our research results, the kinds of affecting risks are brand awareness that does not increase the risk of losing old clients, the risk of companies that do not promote a product, and an affordable market share. It includes:

- 1) The influence of brand awareness that does not improve caused by lack of marketing and presentation of the coffee shop;
- 2) The risk of missing old clients because service to customers is unacceptable;
- 3) The risk that the company does not improve that is caused by an excessive amount of human growth based on the number of assets and brands that are not common to the public; and
- 4) An unreachable market share due to the loss of activeness in marketing the goods.

The third is the human resource risk. Based on our research decisions, the kinds of affecting risks are loss of costs, turnover, and human resources. It includes:

- 1) The impact of turnover due to loss of coverage given by the company;
- 2) lack of human resource costs due to the number of unsuitable workers;
- 3) The lack of human resource costs due to unsuitable analysis work (Hariandja, 2002).

The fourth is financial risk. Based on our research conclusions, the kinds of affecting risks are the risk of income leakage, the risk of cash prediction, liquidity management, and compliance with financial recording. It includes

- 1) Risk of income loss due to poor product delivery, delays in lack of food orders, telephone numbers, and so forth as a result of fraud and failure and risk of work control using transportation;
- 2) The risk of measuring cash due to mistakes in calculating cash demands;
- 3) Liquidity management due to delayed payment of debt flows; and
- 4) Compliance with a financial report due to delays in the performance of financial statements that should be by the regulator's requirements.

Expected Monetary Value (EMV)

Expected Monetary Value (EMV) is a statistical method in risk management used to identify risks and calculate the [emergency reserve](#).

You multiply the probability with the impact of the recognized risk to get the EMV.

Expected Monetary Value (EMV) = Probability * Impact

For instance, let's assume you have four risks with probabilities and impacts as follows:

Risk	Probability	Impact (USD)	EMV (Probability * Impact)
1	10%	-4,000	-400
2	30%	-1,000	-300
3	25%	2,000	500
4	60%	-1,500	-900
		-4,500	-1,100

From the above table, you might imagine that you may want 4,500 USD to control all risks, but this is incorrect. With all the identified risks, only a few will happen. The risks that do not happen will add their EMV to the pool, and the risks that happen will use the money from the pool.

So, you will want 1,100 USD to include all identified risks in the above case.

For Example,

assume you have identified risk with a 30% chance of happening. If this risk happens, it may require you 500 USD. we can calculate the expected monetary value (EMV) for this risk event as follow:

The probability of risk = 30%

Impact of risk = – 500 USD

Expected monetary value (EMV) = probability * impact

= 0.3 * – 500 = – 150

The expected monetary value (EMV) of the risk event is –150 USD.

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