



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

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Section

Master

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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)
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Instructor's Name: Eng. Mosaab M. Hamed

Risks of Building a Perfume workshop project

1. Introduction

Building a small perfume workshop has been widely spread around the world as the utilities are facilitated. However, the wide spread of fragrance let us thinking what kind of risks we may face while building of this project. We have deiced to choose to build a brand with Arabian scent as they are now developed locally and even worldwide, so it will be a good opportunity and beneficial that building a small workshop will enhance our business in the beginning of producing fragrances. Moreover, decision to extend the small perfume workshop to manufacture also cosmetics, would be more beneficial in business.

During this report, we will identify project risks, prepare a risk probability matrix, and carry out an analysis of selected risks to eliminate or reduce negative impacts on the project.

2. Literature Review

According to Association for Project Management Methods of Risk, it published mini guide Project risk analysis and Management in January, 2018, shorted as (PRAM), they simplify PRAM as two stages: **Risk Analysis and Risk Management.**

2.1 Risk analysis

We can define risk analysis is the integrate of the estimate and evaluate sub-phases within the process phase as shown in Figure 2.1.1.

This stage of the process is also divided into two sub-stages:

- 1- Qualitative analysis: identification and subjective assessment of risks.
- 2- Quantitative analysis: objective assessment of the risks.

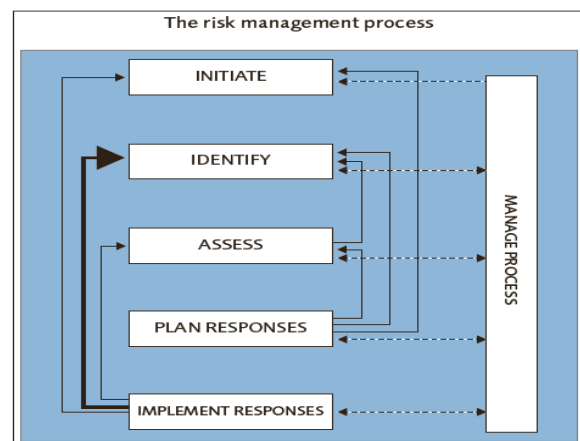


Figure 2.1.1 Risk management process

2.1.1 Qualitative analysis

In this substage, risk sources and factors are identified. For example: aid of checklists, interviews or brainstorming sessions. It is usually related to the form of assessment that describes each risk and its impacts or a subjective labelling of each risk (such as, high/medium/low) in terms of both its impact and its probability of occurrence.

2.1.1 Quantitative analysis

A quantitative analysis mostly needs more sophisticated techniques, usually requiring computer software. Mostly, this is the formal aspect of the whole process requiring:

- Measurement of uncertainty in estimates of cost and time;
- Combination of Probabilistic of individual uncertainties.

3. Methodology

3.1 Qualitative risk analysis: identification is the first phase of the qualitative analysis. This is the most important element of the process, since once risks have been identified, it is possible to put the responses about them. Identification can be achieved by:

- | | |
|---|--|
| 1- Interviewing members of the project team | 3-By using the expertise of the risk analyst |
| 2- Brainstorming meetings | 4- Reviewing lesson learned if exist. |

Look at table 4.3 to see the list of identified risks.

3.2. Quantitative risk analysis: we will use Expected Monetary Value (EMV) which is a statistical technique in risk management used to quantify risks and calculate the contingency reserve. It calculates the average outcome of all future risks that may or may not happen. We can get the results of EMV by multiplying the probability with the impact of the identified risk.

$$\text{Expected Monetary Value (EMV)} = \text{Probability} * \text{Impact}$$

3.3 Risk Management

The risk management begins right after completing the Qualitative analysis and continue its process during whole Project life cycle. The information obtained during the quantitative analysis allows the project manager to trade off taking actions against the likelihood and impact of risks occurring.

3.3 Risk's Responses

Responses to risk can do one or combination of the following:

Avoid	risks that can be eliminated from the project and so it become no longer forming a threat.
Reduce	the impact probability of risks that can be reduced by implementing certain actions
Transfer	risks can be transfer to other parties who may be better placed to manage the risks or prepared to insure against their impacts. Unfortunately, this does not remove risks or change the ownership of risks.
Accept	the benefits that can be gained from taking the risk should be balanced against the penalties.

Table 4.2: Responses to Risks

3.4 Some of Risk Identifications, Responses and Mitigation

Risk description	Response and Mitigating actions
Defining Project Schedule not done clearly	meet project team and clearly inform them to be aware to reduce he plan and likelihood of missed tasks.
Accommodation of unplanned work	Attend project scheduling workshop.
	Benchmark your project, for actual work and costs.
	Check all plans.
	Before kick off the project, document all assumptions made in planning and communicate to the project manager.
Incompletion of Project Design and Deliverable Definition	Get help from Subject Matter Experts and define Scope in details
Project Purpose not well defined	If not provided, do actions to complete it and ensure is well defined according on Project charter and PID
Make a strong communication	Identify stakeholders in initiation phase and inform them and ensure all are aware of their interests. Use most appropriate channel of communication for audience.
Staff priorities are not well controlled	The Project Sponsor should inform team managers on the importance of the project. Resources should be soft booked as early as possible and then communicate final booking dates as soon as after the scheduling workshops. recognize backups for each human resource on the project.
Delays of Consultant or contractor	Late penalties should be included in contracts.
	Keep on lead time in the schedule.
	Communicate schedule early.
	Check in with suppliers regularly.
Estimating errors of scheduling	Divide this risk into two: 'cost estimating' and 'scheduling errors'.
	Use methods of cost estimation, and carefully track costs and forecast cost at completion and do adjustments if necessary.

	keep in 10% contingency plan for cost and scheduling.
	Track schedules daily and include schedule review in every meeting.
	Flag forecast errors delays early into the Project Board.
Scope creep	Document the project scope in a Project Initiation Document or Project Charter and get it authorized by the Project Board. Refer to it throughout the project and assess all changes against it also ensuring alignment of any changes with the Business Case.
Delays or pauses project due to legal requirements.	Ensure all contracts signed before initiating the project. All regulatory requirements and complete stakeholder management plan must be met.
Lack of communication, causing lack of clarity and confusion.	Write a communication plan well.
Delays of Customer approval	Make sure decision making of customer are with budgetary authority and is identified before project initiating and is part of the project board. Communicate dates for sign-off points up in advanced.
Additional workload or time requirements because of new direction, policy, or statute appears.	No way to reduce likelihood of this risk.
Materials, properties or equipment may be stolen	Put security Guardian and cameras, and make sure Non-Disclosure Agreements (NDAs), & compliance certificates are in place. If possible, make insurance against theft
Escalation of unresolved conflicts in timely manner	meet project team regularly, and look at the conflicts. Compare the conflicts the project plan and stakeholder engagement plan for getting the right action
Customer testing done inadequately	Make sure customer prepares test cases, quality checks and protect testing, and quality assurance.
Delays due to weather, loss of resources, materials, premises and even electricity.	Chose the suitable insurance to cover this risk, make emergency plan and inform the team work. Make the standup equipment in standby such as generators
Delays due to stakeholders' actions	use RACI tools, plan well stakeholder engagement, analyze them as interests/power, review communication plan to ensure the stakeholder's engagement

4. Results and Discussion

Now, we will do risk assessment matrix and Expected Monterey Value as show in the table below

No.	Risk Description	Likelihood	Impact	Severity	Probability	Impact Cost	EMV
1	Defining Project Schedule not done clearly	Low	Medium	Medium	0.1	1000	100
2	Accommodation of unplanned work	Low	High	Medium	0.2	3000	600
3	Incompletion of Project Design and Deliverable Definition	Low	High	High	0.15	3000	450
4	Project Purpose not well defined	Medium	High	High	0.3	1000	300
5	Make a strong communication	Low	High	Medium	0.2	4000	800
6	Staff priorities are not well controlled	Medium	Medium	Medium	0.35	8000	2800
7	Delays of Consultant or contractor	Medium	High	High	0.4	12000	4800
8	Estimating errors of scheduling	Medium	High	High	0.5	9000	4500
9	Scope creep	Medium	High	High	0.4	11000	4400
10	Delays or pauses project due to legal requirements.	Low	Medium	Medium	0.1	3000	300
11	Lack of communication, causing lack of clarity and confusion.	Medium	Medium	Medium	0.3	7000	2100
12	Delays of Customer approval	Medium	Medium	Medium	0.4	7000	2800
13	additional workload or time requirements because of new direction, policy, or statute appears.	Low	Medium	Medium	0.15	4000	600
14	Materials, properties or equipment may be stolen	Low	High	High	0.2	4000	800
15	Escalation of unresolved conflicts in timely manner	Low	Medium	Medium	0.25	5000	1250
16	Customer testing done inadequately	High	High	High	0.7	20000	14000
17	Delays due to weather, loss of resources, materials, premises and even electricity.	Low	High	High	0.15	8000	1200

18	Delays due to stakeholders' actions	Low	High	High	0.3	6000	1800
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Expected Monetary Value (EMV) = SAR 43,600

We observe that, if the customer testing went to inadequate, it may lead the highest cost of risk contingency, so we should focus on reduce this issue as many as possible.

5. References

1. Association for Project Management, (2018), Project risk analysis and management – Mini Guide, https://www.apm.org.uk/media/10466/pram_web.pdf
2. Gump, A. (2001). Using decision models in the real world. PM Network, 15(1), 43–45.
3. <https://www.stakeholdermap.com/risk/register-common-project-risks.html>