



جامعة الجميع الذكية  
EVERYONE'S SMART UNIVERSITY

## Everyone's Smart University

### Project (Spring 2021)

|              |                            |               |
|--------------|----------------------------|---------------|
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Section

Master

Date

Thursday

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Course Code

(PMG510)

## Project Risk Management

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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 \$\$.

## **Risks of Buying a House**

### **Introduction:**

Buying a House is rewarding on so many levels. Not only is there a sense of security that comes from being able to call a physical space your 'own', but there are also financial rewards associated with buying a house. And it is important to be aware of the risks involved in buying a House – so you can adequately plan for any challenges that might come your way.

Buying a house naturally involves certain risks. So long as one is able to meet the mortgage payments, whether due in installments or in one sum, all is well. But if the payments cannot be made, one must face the possibility of foreclosure.

There are a List of potential risks it should be carefully considered in buying a house. such as your financially statement, mortgage payments, location of the house, infrastructure, quality of the material been used, capacity of the house, government fees, power, and utility like water, Electrical.

### **Methodology:**

Usually, Brainstorming is the first step to identify all the potential / possible risks. Therefore, I will involve the experts in this area to have their opinion in this decision as well as I will utilize 8Rs and 4Ts of (Hazard) risk management to find out the risk's probabilities and its impacts

**Table-1**

| N# | List of potential -possible risks              |
|----|------------------------------------------------|
| 1  | Financially statement – ability to buy a house |
| 2  | Mortgage payments                              |
| 3  | location of the house- chosen wrong location   |
| 4  | Camp infrastructure- it not suitable           |

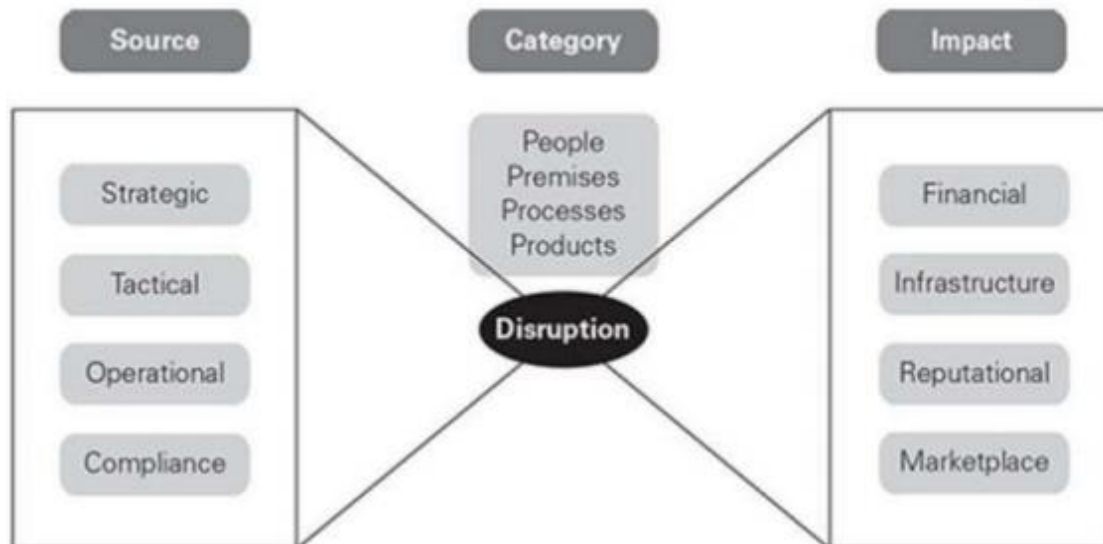
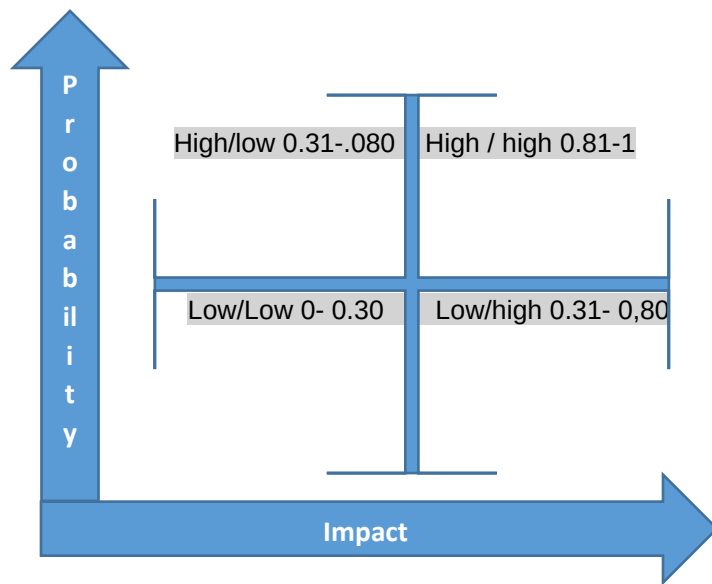
|    |                                                  |
|----|--------------------------------------------------|
| 5  | Quality of the house                             |
| 6  | Area of the house is not covered by Water supply |
| 7  | Electrical not yet joint to the house            |
| 8  | Paint does not meet with the required standard   |
| 9  | Size of the rooms in the house                   |
| 10 | Furniture                                        |

Above list of risks has been identified as risk it might occur. In this stage/step I will use a risks matrix to (Determine the probability and impact of each risk been identified) following to that will be a risk register. (**low** = 0 to 0.30, **medium** = 0.31 to 0.8, **high** = 0.81 to 1)

**Table- 2**

| N# | List of risks                                        | Probability | Impact |
|----|------------------------------------------------------|-------------|--------|
| 1  | Financially statement – ability to buy a house       | 0.5         | 0.9    |
| 2  | Mortgage payments approval                           | 0.5         | 0.8    |
| 3  | location of the house- chosen wrong location         | 0.3         | 0.7    |
| 4  | Camp infrastructure- it not suitable                 | 0.2         | 0.6    |
| 5  | Quality of the house                                 | 0.4         | 0.9    |
| 6  | Area of the house is not covered by Water supply     | 0.3         | 0.5    |
| 7  | Electrical not yet joint to the house                | 0.6         | 0.8    |
| 8  | Paint does not meet with the standard specifications | 0.1         | 0.4    |
| 9  | Size of the rooms inside the house                   | 0.2         | 0.3    |
| 10 | Furniture                                            | 0.3         | 0.7    |

Above table illustrated the risks points has been evaluated and the probability with the impact for each point has been specified. and it is the right time to evaluate the severity to the risks in order to start a response plans for each risk and try to mitigate the impact. Calculating the severity, by using Risks Matrix and Bow-Tie to have a good response plan.



**Table-3**

| N# | List of risks                                  | Probability | Impact | Severity | Response plan                                               | Mitigate Action                                                                    |
|----|------------------------------------------------|-------------|--------|----------|-------------------------------------------------------------|------------------------------------------------------------------------------------|
| 1  | Financially statement – ability to buy a house | 0.5         | 0.9    | Medium   | Analysis your income and make sure prior to purchase.       | you should correct your financially situation and take loan to be able to proceed. |
| 2  | Mortgage payments approval                     | 0.5         | 0.81   | High     | Approved Loan offered not sufficient to buy a house         | You should but another plan to buy apartment instead of house.                     |
| 3  | location of the house- chosen wrong location   | 0.3         | 0.7    | Low      | chosen wrong location                                       | you can move to other location after losing some money                             |
| 4  | Camp infrastructure- it not suitable           | 0.2         | 0.6    | Medium   | Area not suitable yet                                       | Your decision need to be postponed                                                 |
| 5  | Quality of the house                           | 0.4         | 0.9    | High     | Quality of material been utilized during the building phase | Insurance required from the owner for the house                                    |

|   |                                                  |     |     |        |                                                                                    |                                                                                                                                      |
|---|--------------------------------------------------|-----|-----|--------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 6 | Area of the house is not covered by Water supply | 0.3 | 0.5 | Low    | It might by a new area and still under construction                                | make a new subscription with one of the water company supply until this problem it gets solved                                       |
| 7 | Electrical not yet joint to the house            | 0.6 | 0.8 | Medium | It might by a new area and still under construction                                | Check with provider company of this service and based on their feedback you may need to Be Postponed your decision of buying a house |
| 8 | Paint does not meet with the required standard   | 0.1 | 0.4 | Low    | House paint not in line with the slandered specification including heat isolations | Need to repaint the house with the suitable one.                                                                                     |
| 9 | Size of the rooms in the house                   | 0.2 | 0.3 | Medium | it might by not as per your required specification                                 | You may need to open two rooms and align space you may need                                                                          |

|    |           |     |     |     |                                                                                       |                                                                                       |
|----|-----------|-----|-----|-----|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|    |           |     |     |     |                                                                                       |                                                                                       |
| 10 | Furniture | 0.3 | 0.7 | Low | If you buy a low-quality furniture you may loss a lot of many and without any benefit | Make sure you buy your furniture form known company's with warranty to avoid any risk |

## Results

Expected monetary value (EMV) is a risk management technique to help quantify and compare risks in many aspects of the project. In below table will calculate and illustrate the EMW cost for buying a house taking in consideration that numbers are based on experience and does not present the right figure.

✚ Total potential impact is 1,500,000.00 SAR and contingency cost is 602000.00 SAR

**Tabl-4**

| N# | List of risks                                    | Probability | Impact Cost (SAR) | Risk contingency |
|----|--------------------------------------------------|-------------|-------------------|------------------|
| 1  | Financially statement – ability to buy a house   | 0.5         | 150,000.00        | 75000.00         |
| 2  | Mortgage payments approval                       | 0.5         | 650,000.00        | 350000.00        |
| 3  | location of the house- chosen wrong location     | 0.3         | 150,000.00        | 45000.00         |
| 4  | Camp infrastructure- it not suitable             | 0.2         | 150,000.00        | 30000.00         |
| 5  | Quality of the house                             | 0.4         | 100,000.00        | 40000.00         |
| 6  | Area of the house is not covered by Water supply | 0.3         | 50,000.00         | 15000.00         |

|    |                                                      |     |                     |                  |
|----|------------------------------------------------------|-----|---------------------|------------------|
| 7  | Electrical not yet joint to the house                | 0.6 | 50,000.00           | 30000.00         |
| 8  | Paint does not meet with the standard specifications | 0.1 | 100,000.00          | 1000.00          |
| 9  | Size of the rooms inside the house                   | 0.2 | 50,000.00           | 1000.00          |
| 10 | Furniture                                            | 0.3 | 50,000.00           | 15000.00         |
|    | <b>Total</b>                                         |     | <b>1,500,000.00</b> | <b>602000.00</b> |

## Discussion

**Table-1** I have Listed some potential risk points as result of brainstorming sessions, experts, friends who has the same experience before. And we assume that specified point it is the critical one we should consider it prior to our decision to buy a house.

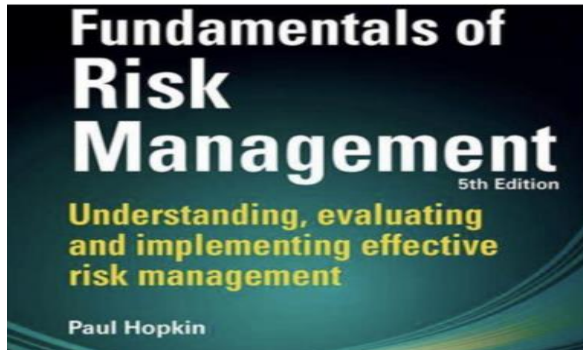
**Table-2** I selected the risk matrix to determine the probability and impact of each risk been identified and risk register. (**low** = 0 to 0.30, **medium** = 0.31 to 0.8, **high** = 0.81 to 1)

**Table-3** It is the result of evaluate the severity to the risks and response plans for each risk and try to mitigate the impact. Calculating the severity, by using Risks Matrix and Bow-Tie to have a good response plan or you may take another decision.

**Table-4** In this table there is an impact cost of buying a house and risk contingency and based on this figure you may take your decision of buying a house or apartment.

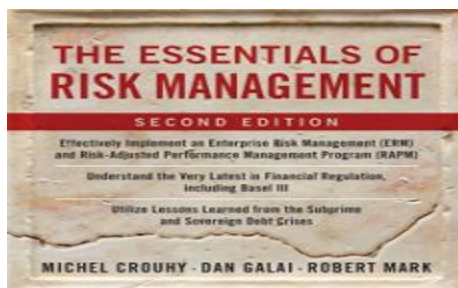
## References:

Fundamentals of Risk Management: Understanding, Evaluating and Implementing Effective Risk Management by Paul Hopkin



## Other references:

The Essentials of Risk Management by Michel Crouhy



A Practical Guide to Risk Management by Thomas S. Coleman

