

Everyone's Smart University

Assignment 1 (Spring 2021)

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Section

**Master of Project
Management**

Date

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Course Code

(PMG510)

Project Risk Management

Instructions:

Instructor's Name: Eng. Mosaab M. Hamed

Throughout this course you have learned about the different types of risk and how businesses manage them. Now you will be able to see how it is done in a well-known company.

Your assignment is to choose one of the following companies:

Saudi Aramco

The National Commercial Bank

Saudi Telecom Company

Do some research on any of the aforementioned companies and identify four risks they are facing.

For each risk please answer the following:

1. Why is this a risk?
2. What type of risk is it?
3. What is the likelihood of the risk? How great is the impact?
4. What strategy or policy does the company use to manage the risk?

** Your answers could either be in Arabic or English.

** You should submit your assignment in a pdf formatted file.

** Font size should be 12.

** Font type is Arial.

** Line spacing is 1.5.

All the best.

Saudi Aramco Company

1. Risks related to terrorism, armed conflict and sabotage:

Terrorism, armed conflict and sabotage may materially and adversely affect Saudi Aramco as hazard risks. It considers as **hazard risks** since Saudi Aramco's facilities have been targeted by terrorist and other attacks in September 2019, the Abqaiq facility and the Khurais processing facility were subject to attack by unmanned aerial vehicles and missiles. As a result, overall crude oil production and associated gas production was reduced. These attacks resulted in fires and damage to the processing and cogeneration infrastructure. Any additional terrorist or other attacks could have a material adverse effect on Saudi Aramco's business, financial position and results of operations and could cause Saudi Aramco to expend significant funds. Saudi Aramco took a number of actions to minimize the impact of lower Arabian Light and Arabian Extra Light production by tapping into Saudi Aramco's inventories located outside the Kingdom and swapping grades of deliveries to Arabian Medium and Arabian Heavy in addition to maximize security in all Saudi Aramco asset and finalize business continuity plan (BCP). Below sheet shows details top down RA including to likelihood and impact:

Risk Identification				Inherent Risk Assessment				Risk Analysis		Residual Risk Assessment				Risk Management
SN	Risk type	Risk Description	Potential Consequences	Impact	Likelihood	Risk Score	Risk level	Risk Drivers / Root Causes	Existing Controls	Impact	Likelihood	Risk Score	Risk level	Response Strategy
1		Risks related to terrorism, armed conflict and sabotage	Business interruptions, reputational financial loss, reputational damage and non-compliance to environmental regulations.	3	3	9	Medium	terrorism, armed conflict and sabotage	- Procedure - Assets condition assessment - People operational competency - Technology fire alarm and patrolling - Saudi Aramco took a number of actions to minimize the impact of lower Arabian Light and Arabian Extra Light production by tapping into Saudi Aramco's inventories located outside the Kingdom and swapping grades of deliveries to Arabian Medium and Arabian Heavy in addition to maximize security in all Saudi Aramco asset and finalize business continuity plan program (BCP). - max. fuel storage for contingency	2	2	4	Low	Avoided

2. Risks related to IT systems:

Saudi Aramco relies on the security of critical information and operational technology systems for, among other things, the exploration, development, production, storage and distribution of hydrocarbons; the processing, use and security of financial records, proprietary information, intellectual property, personal information and operating data; and communications with management, personnel and business partners. **Cyber incidents** may negatively impact these or other functions and, particularly in relation to industrial control systems, may result in physical damage, injury or loss of life and environmental harm. It is **hazard risk** (process) 4 Ps. The Company works to protect Company data and systems, ensure business continuity and operational recovery, repel intrusion attempts, Data privacy compliance, addresses cybersecurity at senior levels, including Board consideration and oversight of the Company's cybersecurity and assessment of risks. Cybersecurity regularly reviewed by the Risk and HSE Committee to an ever-changing cyber threat landscape, the Chief Information Security Officer leads the cybersecurity governance management model for Saudi Aramco's operations in the Kingdom,

established a Supply Chain Cybersecurity Program. Below sheet shows details top down RA including to likelihood and impact:

Drill-down (Top-Down Risks Assessment)

Risk Identification				Inherent Risk Assessment				Risk Analysis		Residual Risk Assessment				Risk Management
SN	Risk type	Risk Description	Potential Consequences	Impact	Likelihood	Risk Score	Risk level	Risk Drivers / Root Causes	Existing Controls	Impact	Likelihood	Risk Score	Risk level	Response Strategy
1		Risks related to IT systems	Business interruption, loss of revenue, loss of reputation and customers, physical damage, injury or loss of life and environmental harm.	5	2	10	Medium	cyber incidents, cyberattacks by nation states, criminal hackers and competitors	Data privacy compliance, addresses cybersecurity at senior levels, including Board consideration and oversight of the Company's cybersecurity and assessment of risks. Cybersecurity regularly reviewed by the Risk and HSE Committee. To an ever-changing cyber threat landscape, the Chief Information Security Officer leads the cybersecurity governance management model for Saudi Aramco's operations in the Kingdom, established a Supply Chain Cybersecurity Program	4	1	4	Low	Reduce

3. **Risk related to crude oil or gas spills, pipeline leaks and ruptures, storage tank leaks, and accidents involving explosions & fires:** it is a hazard risk due to most of Saudi Aramco assets are pipeline and storage which transport oil and products through the Kingdom. Saudi Aramco also depends on these critical assets which could result in damage to, or destruction of, Saudi Aramco's properties and facilities, death or injury to people and harm to the environment, which could have a significant impact on Saudi Aramco's operations or result in significant liabilities and remediation costs. SA have high professional maintenance program, routine inspection, 24/7 patrolling transport pipeline and leak detection system along on pipeline. Below sheet shows details top down RA including to likelihood and impact:

Risk Identification				Inherent Risk Assessment				Risk Analysis		Residual Risk Assessment				Risk Management
SN	Risk type	Risk Description	Potential Consequences	Impact	Likelihood	Risk Score	Risk level	Risk Drivers / Root Causes	Existing Controls	Impact	Likelihood	Risk Score	Risk level	Response Strategy
1		Risk related to crude oil or gas spills, pipeline leaks and ruptures, storage tank leaks, and accidents involving explosions & fires	Business interruption, loss of revenue, loss of reputation and customers, safety and enviro. Concerns	3	3	9	Medium	* pipeline Hammering (operational philosophy) * external incidents * Design & network quality issue * Lack of checks & inspection * Less efficiency of some old and corroded pipeline, storage * storage overflow * mis-operation and mis-use	* Standard operational procedures & training * Carrying routine checks & PM activities for ARV * Identification of pipe break on material wise, location wise, oil loss quantity wise and repair time. For future replacement plan Installation to better target high leak areas * CAPEX: Transient logger to analyze oil hammer origin and reduce impact on asset * Renewal plan to replace valves and air release valves * leak detection system, 24/7 patrolling transport pipeline	2	2	4	Low	Accept

4. Power supply shortage/ failure and interruption:

It is hazard risks and would be result in damage to, or destruction of, the company's properties and facilities, reducing production and affecting plant operation process and may lead to unsafe shutdown plant, which could have impact on operation or result in liabilities and remediation costs. The company take many appropriate actions to eliminate this risk by set very reliable redundant power supply system design, business contingency plan, blackout plant procedures, backup power supply like diesel engine and battery bank trucks.

Drill-down (Top-Down Risks Assessment)

Risk Identification				Inherent Risk Assessment				Risk Analysis		Residual Risk Assessment				Risk Management
SN	Risk type	Risk Description	Potential Consequences	Impact	Likelihood	Risk Score	Risk level	Risk Drivers / Root Causes	Existing Controls	Impact	Likelihood	Risk Score	Risk level	Response Strategy
1		Power supply shortage/ failure and interruption	result in damage to, or destruction of, the company's properties and facilities, reducing production and affecting plant operation process and may lead to unsafe shutdown plant, which could have impact on operation or result in liabilities and remediation costs	3	3	9	Medium	Power supply shortage/ failure and interruption in remote area	The company take many appropriate actions to eliminate this risk by set very reliable redundant power supply system design, business contingency plan, blackout plant procedures, backup power supply like diesel engine and battery bank trucks	2	2	4	Low	Reduce