

Everyone's Smart University

Assignment 1 (Spring 2021)

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Section

Master of Project
Management

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Project Risk Management

Instructions:

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The Selected Company in this assignment is **Saudi Aramco**. The Table below shows:

- ✚ 4 risks the company faces.
- ✚ The reason of considering them as risk.
- ✚ The Likelihood and the probability of the Risks.
- ✚ The strategy of the company for controlling these risks and its impacts.

The way I used here to specify the type of Risk was depend on the Trigger Risk (Root cause), the Intermediate Cause and the final impact of the risk on different objectives. The Risk assessment here is based on the available information from **Saudi Aramco** website and due to data privacy of the company the risk assessment here is missing a lot of information that has impact on its Accuracy and precision.

Note: The Scale that used to evaluate the risks is scale with five levels as shown below:

<u>Table 2: Impact vs. Probability Matrix</u>					
Probability	Threats				
Very High / 0.9	0.05	0.09	0.18	0.36	0.72
High / 0.7	0.04	0.07	0.14	0.28	0.56
Moderate / 0.5	0.03	0.05	0.1	0.2	0.4
Low / 0.3	0.02	0.03	0.06	0.12	0.24
Very Low / 0.1	0.01	0.01	0.02	0.04	0.08
Impact	Very Low / 0.05	Low / 0.1	Moderate / 0.2	High / 0.4	Very High / 0.8

Table 1: Probability Scale		
Likelihood		Description
Relative	Numerical	
Very Low	0.1	Highly unlikely to occur.
Low	0.3	Will most likely not occur
Moderate	0.5	Possible to occur
High	0.7	Likely to occur
Very High	0.9	Highly likely to occur

High risk	Score > 0.14
Moderate risk	0.05 < Score < 0.14
Low risk	Score < 0.05

Risk	Why do u consider it risk?	Root cause	The intermediate cause	What type of risk is it?(based on the first thing that will be impact)	What is it probability?	What is the level of Impact	Threat level	Impacted Objective	The strategy or Policy does the company use to manage the risk?	
pipeline leaks and ruptures of hydrocarbon (Risks related to operational risks and hazards)	This risk was consider as risk because it has a negative impact on different objectives including the Operation of the Industries	Hummen Error due to lack of training (control Risk)	Could be from employee didn't comply with operation instructions (Compliance Risk)	Hazard Risk	Moderate	Very high	High Risk	Financial	leveraging technology and innovation and using technologies include high frequency radar, high-tech mooring buoys, intelligent early-warning systems and hydrodynamic modeling capabilities to predict failures before it happen and reduce the impact of the risk by taking an action immediately.	
		Could be The control of the operation was not enough in the company to build a sense of responsibility and accountability for the worker (Control Risk)			Moderate	Moderate	Moderate Risk	Infrastructure		
		The instructions was not covering all possible risks (Control Risk)			Moderate	High	High Risk	Reputational		
		The instructions was not covering all possible risks (Control Risk)			Moderate	Moderate	Moderate Risk	Marketplace		
		The instructions was not covering all possible risks (Control Risk)	Could be from failure the pipeline structure or the environment impact on the pipeline (Control Risk)		Moderate	Moderate	Moderate Risk	People		
		Moderate			High	High Risk	Assets(Process)			
		Moderate			High	High Risk	Product Quality			
		Moderate			Very high	High Risk	Environment			
Cyber attack (Risks related to operational risks and hazards)	This risk was consider as risk because it has a negative impact on different objectives including the Operation of the Industries	Hummen Error (Unintentionally or intentionally) due to lack of training or Quality of training (control Risk)	Could be from employee didn't comply with operation instructions (Compliance Risk)	Hazard Risk	Very high	Very high	High Risk	Financial	The Company has programs, controls and processes in place designed to protect Company data and systems, to ensure business continuity and operational recovery and to repel intrusion attempts. To respond 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, to establish and maintain cybersecurity policies, direct the cybersecurity programs, and mandate relevant processes, capabilities and technologies. In addition, the Company has established a Supply Chain Cybersecurity Program to combat cyber risks originating from third parties.	
		Could be The control of the operation was not enough in the company to build a sense of responsibility and accountability for the worker (Control Risk)			Very high	Moderate	Moderate Risk	Infrastructure		
		The instructions was not covering all possible risks (Control Risk)			Very high	Very high	High Risk	Reputational		
		The instructions was not covering all possible risks (Control Risk)	Could be failure in the security system structure or the system is not strong enough (Control Risk)		Very high	Very high	High Risk	Marketplace		
		The used system is not the appropriate one for that task (Opportunity Risk)			Very high	Moderate	Moderate Risk	People		
					Very high	High	High Risk	Assets(Process)		
					Very high	High	High Risk	Product Quality		
		Could be from the appropriate security is not install (opportunity Risk)			Very high	Low	Moderate Risk	Environment		
Contractor employees get injury (Risks related to operational risks and hazards)	This risk was consider as risk because it has a negative impact on different objectives including the Operation of the Industries	Hummen Error (Unintentionally or intentionally) due to lack of training or Quality of training (control Risk)	Could be from employee didn't comply with operation instructions due to the lack of (Compliance Risk)	Hazard Risk	Very high	Very high	High Risk	Financial	The Company is dedicated to the health, safety, wellness and overall human rights of its contractors. The Company's success and resilience stem from collaborating with its committed partners as they contribute 80% of total man-hours. Dedicated teams continuously provide in-depth assessments and support to improve contractor safety performance. Living conditions and contractor pay are assessed on a regular basis to ensure adequate labor conditions. Proactive safety performance metrics and injury statistics are utilized to drive selection of contractors performing high risk construction, drilling, operation and maintenance activities. The Company's safety culture is rooted in integrating safety in every facet of its business, including contractor utilization.	
		Could be The control of the operation was not enough in the company to build a sense of responsibility and accountability for the worker (Control Risk)			Very low	Very low	Low Risk	Infrastructure		
			Very high		Very high	High Risk	Reputational			
		The support equipments for control was not provided (control Risk)	The process was not properly evaluated gainst risk (Control Risk)		Low	Low	Low Risk	Marketplace		
		Very high			Very high	High Risk	People			
		Low			Low	Low Risk	Assets(Process)			
		Very low			Very low	Low Risk	Product Quality			
		Very low			Very low	Low Risk	Environment			
reduction in the demand and price of, hydrocarbons (Risks related to Uncertainty)	This risk was consider as risk because it has a negative impact on different objectives including the Operation of the Industries	climate change (opportunity Risk)	Could stope supplying the hydrocarbons (Control Risk)	Control Risk	Moderate	Very high	High Risk	Financial	The company uses a restrikted policies,regulation with technologies and inovation in their operation. In addition, saudi aramco monitoring the market and the world issues continuously that make impact their business. Also, Saudi Aramco has embedded risk assessment into its strategic and investment planning.Strategic scenarios are stress tested using stochastic risk modeling.	
		world pandemic like Covid 19			Very low	Very low	Low Risk	Infrastructure		
		Hummen Error due to lack of training (control Risk)	The quality of product was not good (control Risk)		Moderate	Very high	High Risk	Reputational		
		Could be The control of the operation was not enough in the company to build a sense of responsibility and accountability for the worker (Control Risk)			Moderate	Very high	High Risk	Marketplace		
		The instructions was not covering all possible risks (Control Risk)			Moderate	Low	Low Risk	People		
		The instructions was not covering all possible risks (Control Risk)			Low	Low	Low Risk	Assets(Process)		
		Failure in the process (Hazard Risk)			Very low	Very low	Low Risk	Product Quality		
		Miss comply to the standard (compliance Risk inetnal and/or external)			Very low	Very low	Low Risk	Environment		