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Sustainability Challenges In Social Marketing: Oil And Gas Companies In Middle East Region Case Study

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Abstract

This study addresses the issue of the climate change crisis, which has caused many dangerous phenomena for humanity, due to greenhouse gas emissions that cause global warming, drought, and others. The most important reason for this phenomenon that worries the world is human behavior, especially the use of fossil fuels. The largest contributor to this behavior is international oil companies, which export oil to all countries of the world. The most important major source of oil is the Middle East. Oil companies operating there play an essential role in the growth of the oil industry around the world, which has caused a significant increase in the level of global greenhouse gas emissions. The study reviews the practices undertaken by national companies in the Middle East and their attempts to mitigate the effects of climate change by adopting environmental sustainability policies. This study aims to evaluate national oil companies operating in the Middle East region to determine the level of companies' ability to contribute to mitigating the effects of climate change. The study reached many results and identified companies with high environmental performance and positive methods that can be disseminated to achieve the required environmental sustainability and implement sustainable development practices, and how to benefit from social marketing and direct it towards enhancing awareness of climate risks.

Keywords: Sustainability, Social Marketing, Climate Change, Key Strategies, Environmental Sustainability, Social Marketing Initiatives, Greenhouse Gases.

1. Introduction

The Middle East is the world's wealthiest region in terms of oil and gas, with vast resources and growing demand. Despite skepticism about oil reserves, advancements and better technologies have led to growth. The region will continue to be the world's leading supplier of petroleum and natural gas. However, challenges include raising investment capital, addressing domestic demand, reliance on imported technology and labor, limited regional cooperation, and[1] increased arms imports. Political and social changes, such as the Arab Spring and regional disputes, have raised concerns about the sustainability of supply and increased global involvement in local concerns. (Khatib, 2014). Middle Eastern nations, comprising 48.3% of the world's petroleum reserves, are key to global oil production. Last year, Saudi Arabia, Iraq, Kuwait, Iran, Oman, and UAE were the leading crude oil producers. These deposits also contribute to economic development, with over 15 million barrels taken daily. (Biceroglu et al., 2023).

Saudi Arabia, the world's third-largest oil producer, has the second-largest petroleum reserves. With 297.5 billion barrels of proven oil reserves, it contributes 17.2% of the world's oil reserves and 70% of its exports. (Sinha et al., 2020). Iraq is the second-largest oil producer in the Middle East, manufacturing 4.084 million barrels of petroleum daily. Iraq is also the world's fifth-largest oil producer. Iraq is the fifth-largest oil-producing nation, with 145 billion barrels of known reserves (8.4% of the world's oil reserves). Crude

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oil makes up 95% of Iraq's exports, making it the Organization of the Petroleum Exporting Countries (OPEC) member with the highest reliance on oil (Khatib, 2014). Iran, the third-largest oil producer in the Middle East, holds 9.1% of the world's proven oil reserves and ranks as the seventh-largest oil producer. Economic restrictions due to nuclear program hinder oil output and exports. (Aien & Mahdavi, 2020). Kuwait, the fifth-largest oil producer in the Middle East and the 10th-largest global producer, holds 101.5 billion barrels of oil, accounting for 5.9% of the global total. (Knauerhase, 1979). Emirates, with 97.8 billion petroleum reserves, ranks fourth globally. Abu Dhabi holds 95% of oil and natural gas reserves, contributing 30% of GDP and 10% of exports, making it the largest oil resource. (Khatib, 2014).

The study population was chosen exclusively from national oil companies, as it reflects the state's policy towards this topic. However, political crises, war, and global sanctions have hampered their production capacity. These nations are trying to expand oil output to fulfill rising domestic demand and boost exports. The production of natural gas, notably from Iran and Qatar, is essential for the Middle Eastern nations' efforts to diversify their sources of income. These nations provide significant income and aid in economic expansion, but they have difficulties with economic diversification and sustainability due to their large reliance on petroleum resources (Hassan et al., 2023).

The Middle East's oil and gas production has significantly impacted global energy markets, with fluctuations in output and geopolitical unrest impacting oil prices. OPEC has stabilized oil output, while the region has shifted towards diversification and renewable energy, including solar and wind projects. Oil and gas production is expected to remain a significant part of the Middle Eastern economy. (Sinha et al., 2020). The Middle East's oil and gas firms are prioritizing sustainability by recovering flare gas to lower greenhouse emissions from refineries and processing facilities. This research examines the work, sustainability, and social marketing practices of these companies to provide an in-depth analysis of their sustainability efforts. (Sinha et al., 2020).

This case study will examine the influential oil firms located in the Middle East, whose significant influence on the global oil market cannot be underestimated. The purpose of this feasibility study is to thoroughly analyze and clarify the unique features and complexities of each firm in their different nations, thereby offering a full and exhaustive picture. Also, this study aimed to assess the capacity of oil companies operating in the East to mitigate climate change, implement sustainable development practices, and utilize social marketing to enhance awareness of climate change risks within these companies.

2. Study Questions

1. Are there initiatives to reduce climate change in oil companies operating in the Middle East?
2. Do oil companies in the Middle East adopt sustainable development policies?
3. What is the role of social marketing in oil companies operating in the Middle East on the issue of climate change and environmental sustainability?

3. Methodology

The study focuses on the importance of social marketing in oil companies operating in the Middle East in contributing to mitigating the effects of climate change and achieving the environmental sustainability necessary to achieve this purpose. The study relied on the principle of evaluating the performance of companies in the field of confronting climate change and achieving sustainability, and the role of social marketing in this aspect. The data that influenced the study was collected based on many sources, starting with published studies and research. Electronic interviews were conducted with several experts from companies, review of bulletins and periodicals issued by companies, review of official websites, annual reports and performance reports of companies, conferences and activities

related to climate change and sustainability. As well as social media. The data for the study was analyzed based on measuring the level of companies' performance in sustainability, evaluating the company's mission, social marketing activities and public relations, and measuring the level of effectiveness of these variables compared to the international standards required in this regard.

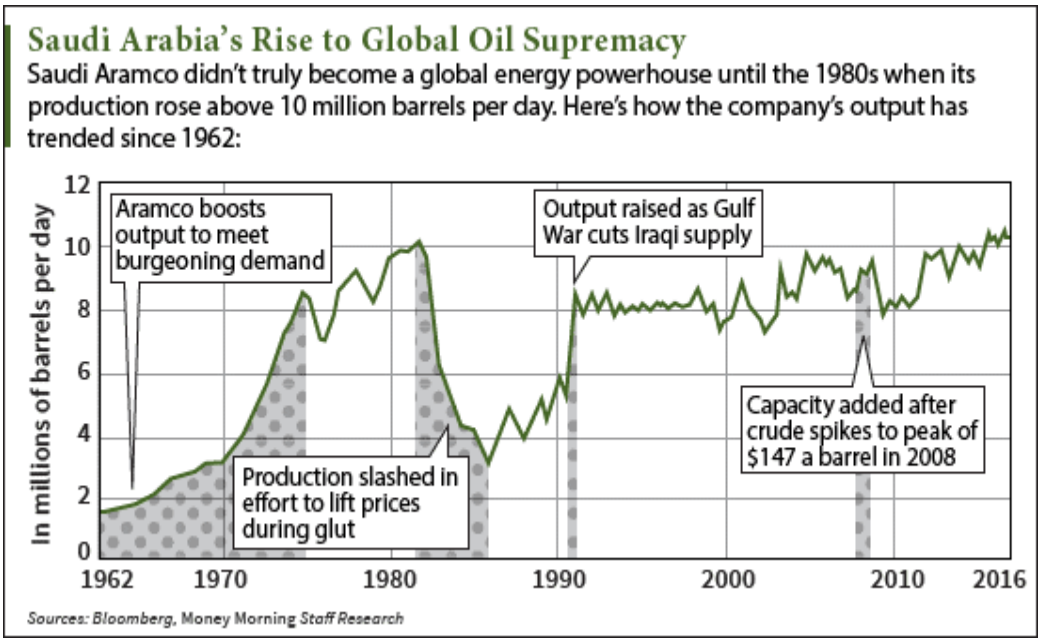
3. ARAMCO (Saudi Arabia)

The creation of Aramco was influenced by the First World War's oil shortage and the San Remo Oil Protocol's exclusion of American businesses from Mesopotamia. In 1921, SoCal established a subsidiary, California Arabian Standard Oil Corporation (CASOC), overseeing a concession. In 1935, Texas Oil Co. bought a 50% share, and in 1938, the corporation was renamed Arabian American Oil Corporation Aramco. (J. U. Ahmed et al., 2018). In the 1930s, Saudi Arabia discovered potential petroleum resources in the country, leading to a concession deal with a major oil corporation. This led to the formation of the Arabian American Oil Company (Aramco), overseeing Saudi Arabia's major hydrocarbon activities. With the world's largest oil fields, advanced technology, and global marketing and refining partnerships, Aramco remains a global leader. (Alghalith, 2012). In 1988, Saudi Arabia established Saudi Aramco, taking over all Aramco's responsibilities, under the leadership of His Excellency Engineer Ali bin Ibrahim Al-Nuaimi, who became the country's first president and CEO.(Ghanem & Alamri, 2023).

Star Enterprises, a joint venture with Texaco, evolved into Motiva in 1990. Aramco transformed from oil producing and exporting to an integrated petroleum company. The largest crude oil refinery in North America was bought by Saudi Aramco in 2017.(Alyaum Newspaper, 2022). Aramco boosts oil and gas value by offering non-metallic and crude-to-chemicals goods, investing in efficient production, transportation, and emissions to convert petroleum reserves into revenue sources. (Aramco, 2023b).

The Saudi Aramco graph shows the company's rise to global dominance in energy, with a projected $3 trillion worth. Its oil production, which increased significantly since the 1960s, has led to its largest stock offering in history. (MCGUIRE, 2016).

Figure (1) Aramco Historical Oil Production Chart



Source: (MCGUIRE, 2016)

3.1. Mission and objectives:

ARAMCO aims to maximize oil and gas resource recovery while providing sustainable energy for future generations, investing in long-term planning and longer R&D cycles. (Rassenfoss, 2012). Technological advancements are transforming global lives by increasing energy availability, reducing CO2 emissions, developing lightweight materials, and protecting water resources. (MCGUIRE, 2016).

Aramco main objectives can be summarized as below (Alyaum Newspaper, 2022):

A. Exploration and Oil Output: Aramco aims to boost oil output to meet domestic and international demand by continuously discovering and developing new oil fields and employing advanced extraction methods.
B. Technologies and creativity: Aramco is investing in research and development to enhance oil recovery methods, streamline production, and explore alternative energy sources, thereby enhancing productivity and sustainability.
C. Ramco is crucial for Saudi Arabia's economic growth by promoting economic diversity, supporting small enterprises, and creating employment opportunities.
D. Financial efficiency: Aramco aims to generate substantial shareholder returns by effectively managing costs, investing diversely, and exploring new company opportunities.
E. Sustainability: Aramco, along with other oil firms, is committed to reducing environmental impacts by adopting eco-friendly practices, reducing greenhouse gas emissions, and investing in renewable energy sources.

3.2 Key strategies:

Aramco's strategy plans focuses on national commitments, global supply roles, commercial factors, and profitability. The Saudi Ministry of Petroleum and Mineral Resources sets policies, while the King controls oil and gas policy. (Rassenfoss, 2012). Aramco manages its operational income through state royalties and dividends, utilizing an autonomous fiscal system and American business culture. Aramco fulfills its social obligation by fostering localization, human resource development, and private sector employment. (J. U. Ahmed et al., 2018).

Aramco's HR strategy focuses on internal organizational health evaluation, market trends, and company strategy. It includes recruiting, development, training, leadership, and engagement strategies. HR functions influence organizational strategy and enhance performance through teamwork, knowledge exchange, and stakeholder cooperation. The corporate HR vision focuses on personnel planning, performance management, and leadership development. (Alexander, 2018).

Saudi Aramco prioritizes social responsibility through sustainability, reducing environmental impact and collaborating with local and global initiatives to enhance energy efficiency annually. (Aramco, 2023b). Saudi Aramco invests heavily in research to reduce production waste and greenhouse gas emissions. Despite increasing production, waste and emissions have decreased. The company focuses on renewable energy, including solar and wind turbine farms. It also uses unique water-cleaning technologies for wastewater recycling and cogeneration to convert industrial waste into electricity. This approach addresses environmental concerns and promotes sustainable practices in the oil and gas industry. (Ruka & Rashidirad, 2019).

3.3. Aramco Sustainability Initiatives

Aramco aims to capture value across the energy sector's value chain, expand its portfolio profitably, and provide dependable, affordable, and sustainable energy to communities

worldwide. The most significant among Aramco's various sustainability projects are (Aramco, 2023a):

A. Aramco has established a $1.5 billion Sustainability Fund to invest in innovative solutions to combat climate change, including low carbon and energy intensity reduction.
B. Aramco has implemented a circular carbon economy framework, focusing on reuse, reduction, removal, and recycling. The cyclical system of economics uses the same resources, and Aramco and partners created circular polymers certified for the first time in North Africa and the Middle East.
C. Carbon market: Aramco participated in the first carbon credit auction in the Middle East and North Africa, purchasing credits in two auctions organized by the Regional Voluntary Carbon Market Company. The auctions were organized to address the climate crisis and support programs utilizing Verra-registered and CORSIA-eligible credits.
D. Optimizing liquids to petrochemicals value chain: Aramco plans to build South Korea's largest refinery-integrated petroleum chemicals steam crackers, transforming petroleum into chemical feedstock for non-combustion purposes, aiming to expand its value chain.
E. constructing one of the biggest carbon capture &storage centers in the world: Aramco, SLB, and Linde have signed a cooperative development agreement to build a significant carbon capture & storage center in Jubail, KSA, with a capacity goal of 9 MMtpa by 2027.
F. Certification for blue hydrogen and blue ammonia: Aramco's SABIC & SASREF Agri-Nutrients received the world's first accredited certification for manufacturing blue ammonia and blue hydrogen, exploring its commercial potential for emissions reduction in challenging decarbonizing sectors.

3.4. Marketing and Social Responsibility

Aramco prioritizes social responsibility in marketing, promoting its oil and gas products and services through various social marketing initiatives to enhance customer satisfaction and sustainability. A few examples of these initiatives include (Ruka & Rashidirad, 2019):

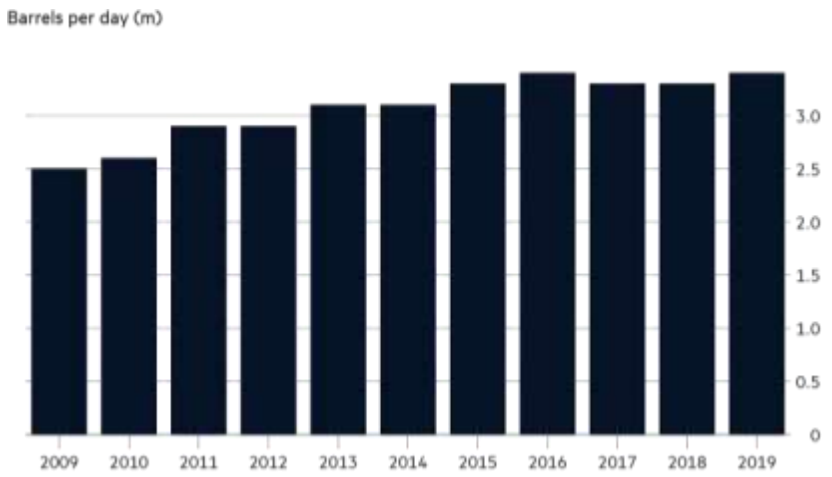
A. Social media marketing: Aramco engages with consumers and disseminates information about its products and services on social media platforms like Facebook, Twitter, and LinkedIn, sharing content and interacting with clients. (Alyaum Newspaper, 2022).
B. Public Relations: Aramco utilizes an aggressive public relations programme to establish partnerships with stakeholders, highlighting its positive impacts on the ecosystem, society, and economy.
C. Research of Markets: Aramco conducts market research to understand customer needs, trends, and preferences, which are then used to develop effective marketing strategies and advertise products and services that meet consumer needs. (MCGUIRE, 2016).
D. Marketing Influencer: Aramco may use influencers such as bloggers and journalists to market its goods and services to its audiences and following.

Saudi Aramco's organizational culture ensures high workforce engagement, customer satisfaction, and maintaining a positive reputation. The company is committed to innovation, fostering educational opportunities, and environmental awareness. Solid client loyalty is crucial for a positive public image. Saudi Aramco also uses its website to gather consumer feedback, enhancing its overall customer experience. (J. U. Ahmed et al., 2018).

4. ADNOC (United Arab Emirates):

Ninety-five percent of the oil and gas resources in the United Arab Emirates (UAE) are located in Abu Dhabi, the country's biggest. The 1958 discovery of oil in the Morban Bab Oil Field, Morban-3, led to the start of crude oil production in 1960. 0.42 trillion cubic feet of gas are present in the nation's unexplored and tapped blocks, which support economic expansion (Alhammadi et al., 2021). The start of oil production by Abu Dhabi National Oil Company (ADNOC) was delayed by World War II until 1962. It is now one of the top energy producers in the globe. With its headquarters in Abu Dhabi, it serves as the principal engine for the growth of the Emirates. State-owned and operational since 1971, the corporation was formally formed in 1970. It boasts of its ownership relationships with numerous big Western oil firms and its workforce of approximately 19,300. A minimum of 92% of the 100 billion barrels of crude oil in the United Arab Emirates are owned by ADNOC. It manages several additional petrochemicals, oil, and gas subsidiaries, including three oil production businesses, two refineries, two shipping firms, Abu Dhabi Gas Industries Limited, and Abu Dhabi Marine Oil Operating Co. The firm offers gas, electricity, and desalinated water to the inhabitants. ADNOC is considered the most valuable brand, with a brand value of $10.8 billion as of 2021 (Laveille et al., 2018). The business has served as Abu Dhabi and the UAE's main enabler since its founding. Its restructuring increased productivity and transformed it into a globally competitive energy producer. Since its founding, the oil tycoon has gained control of the UAE's energy resources. The management works hard to fulfill the expectations of the in-transition energy market while concentrating on a strategic goal. In excess of 0.6 billion cubic feet of natural gas and 3.5 million barrels of crude oil may be produced daily by ADNOC (Alshehhi et al., 2023b). Currently, Mobarraz, Niwat Al-Ghalan, and Um Al-Anbar are where ADNOC gets its oil. The company's water treatment activities are now steady thanks to water processing from the Mobarraz field. To estimate the reservoir's future oil output, geological templates and reservoir models are utilized to compute the existing oil. Surface characteristics are tailored to fulfill manufacturing needs after the development choice has been taken. The figure 2 below shows how ADNOC's oil output has steadily increased over time (Al Mansoori et al., 2020).

Figure (2) ADNOC Oil production (2009-2019)



Source:(Raval & Kerr, 2020)

Oil and gas operations management in the UAE are adopting programmable manufacturing systems to quickly adapt to changes in the market. However, implementing Six Sigma standards, despite its high failure rate, can provide positive benefits if used diligently. To be effective, collaboration and communication at all technical and management levels are crucial. Digitization is the most widely used strategy for improving efficiency in both public and commercial sectors. (Alshehhi et al., 2023).

ADNOC, the UAE's top oil firm, aims to boost income, reduce costs, modernize, and strengthen the energy sector through efficient operational strategies, automation, and digitalization. The company uses modern technology for petroleum extraction and distribution. (Al Mansoori et al., 2020). ADNOC's operations management prioritizes efficient facility structures, capacity planning, and efficient product distribution, employing scientific scheduling techniques, and promoting continuous learning and skill development. (Laveille et al., 2018). ADNOC excels in oil and gas production, focusing on health, safety, and environmental (HSE) to ensure worker security and productivity. (Raval & Kerr, 2020).

4.1. Marketing key Strategies

ADNOC's marketing strategies focus on competitive positioning, corporate principles, and customer involvement. They aim to achieve market share and revenue across expanding market groups through segmentation, risk minimization, and customer-focused delivery times, maximizing profits and optimizing expenses. (Rajagopal & Davila, 2020). ADNOC plans to transition from a unilateral official selling price to transparent, market-driven forward pricing for crude oil, enabling better pricing, commerce, and organization of crude needs, and launching ICE Futures Abu Dhabi. (ADNOC, 2019). ADNOC is transforming into a dynamic, integrated supply, trade, and marketing organization, focusing on trading, storage, and shipping. The company is expanding its shipping fleet and services, purchasing 10% of VTTI, and launching trading to manage flows, assets, and risks. ADNOC has established two new subsidiaries: ADNOC Global Trading, focusing on refined goods from ADNOC Refining, and ADNOC Trading, trading crude oil. (Al Mansoori et al., 2020).

For the company's future, ADNOC prepared a 2030 strategy to develop a sustainable oil industry, which was built on the following foundations (ADNOC, 2022):

1. The global landscape is undergoing significant transformations, and as a result, energy markets are seeing many fundamental changes.
2. In anticipation of future developments, there is a need to enhance the worth of hydrocarbon resources progressively, therefore catering to the needs of consumers.
3. The objective is to enhance production efficiency and provide a financially viable and environmentally sustainable gas supply.
4. The objective is to enhance the efficiency of operations by establishing the biggest integrated complex globally in the Ruwais region. Additionally, collaborating with Upstream will contribute to the overall growth and development of the organization. Furthermore, the aim is to evolve into a prominent entity that influences and shapes the market.
5. Implementing a more proactive and adaptable marketing strategy in order to enhance the value proposition of the product.
6. Expanding upon fundamental competencies: (a dependable and accountable collaborator, a competitive edge in cost management, and a favorable geographic position).
7. Sustainability adoption: Sustainability is a fundamental component of ADNOC's core principles and operational methodologies, whereby its strategic endeavors strive to attain a harmonious equilibrium between economic advancement and ecological stewardship.
8. The new strategy, utilizing a balanced achievement approach, aligns with global business system changes, prioritizing sustainability as a top priority. (Rajagopal & Davila, 2020).

4.2. Sustainability Policy

ADNOC's sustainability objectives demonstrate its commitment to responsible production, robust governance, and environmental performance, aligning with the United Nations' Sustainable Development Goals and global energy requirements. (Chen et al., 2023).

ADNOC plans to cultivate 10 million mangrove seedlings in Abu Dhabi's Al Dhafra area to boost biodiversity and protect the ecosystem. Mangroves sequester CO_2 and greenhouse gases, providing habitats for marine organisms. ADNOC has constructed 293 synthetic marine environments to preserve ocean ecosystems. To reduce greenhouse gas intensity, the company plans to increase its Al Reyadah plant's capacity to capture 5 million tonnes of CO_2 annually by 2030. ADNOC's Oil and Gas 4.0 objective emphasizes environmental conservation. (ADNOC, 2020).

The sustainability policy developed by ADNOC is divided into two aspects: environmental and socio-economic.

4.3. Environmental Sustainability

Achieving carbon neutrality involves reducing greenhouse gas emissions to near negligible levels over decades. Strategies include adopting renewable energy, enhancing energy efficiency, promoting low-carbon transportation systems, and improving building energy efficiency. International collaboration, sustainable energy sources, energy efficiency enhancement, low-carbon practices, and effective carbon sink management are necessary. Carbon capture, utilization, and storage (CCUS) is a key process for long-term reduction. (Gu, 2023). ADNOC aspires to achieve zero carbon by 2045 by following the strategy related to this goal according to the steps below:

A. The company's growth strategy aims to achieve deep decarbonization among stakeholders through comprehensive systemic transformations. Collaborative research and information sharing will facilitate a seamless transition towards carbon neutrality, benefiting the firm and its community environment. (Islam et al., 2023). ADNOC aims to generate sustainable value for stakeholders by providing energy with gradual emissions reduction. Its integrated approach focuses on achieving a 25% reduction in carbon intensity by 2030, with a goal of net zero emissions. In 2022, ADNOC achieved significant progress in decarbonization through energy efficiency, flaring management, methane emissions management, CCS technologies, and electrification. The company's commitment to operational excellence and grid-imported electricity led to a significant decrease in emissions. (Zu'bi, 2023).
B. ADNOC is expanding its carbon-reduction efforts through innovative projects, investments in energy solutions, international partnerships, and the establishment of the Low Carbon Solutions and Global Expansion Division. (ADNOC, 2020). Masdar, a subsidiary of ADNOC, consolidates renewable power efforts and contributes to ADNOC's net zero energy goal by 2045. It expands clean energy generation, creates industrial growth opportunities, and advances decarbonization. Masdar also supports the Middle East-wide Net Sustainable Energy Strategic Program by 2050. (Masdar, 2022). Hydrogen is a versatile energy carrier with potential for a more environmentally sustainable and carbon-reduced energy system. It can generate zero emissions and be derived from low-carbon sources or fossil fuels. ADNOC generates 300 kilotonnes of hydrogen annually, with plans to increase production to 500 kilotonnes. In May 2021, ADNOC announced the creation of a global ammonia manufacturing plant, focusing on "blue" ammonia. Hydrogen is expected to play a pivotal role in decarbonization efforts and sustainable development plans, contributing to around 18% of global energy consumption by 2050.(ADNOC Sustainability, 2023).
C. ADNOC is promoting biodiversity conservation through a collaborative effort with civil and urban society groups to cultivate mangrove plants. The initiative aims to

enhance community understanding of mangroves' ecological significance, as they sustain water bodies and sequester carbon. Mangrove forests in the UAE, covering 4,000 hectares, are crucial for coastal environment and marine species habitats. They can sequester CO_2 up to four times faster than tropical rainforest trees. ADNOC's social responsibility initiatives aim to promote sustainability, environmental preservation, and biodiversity for future generations. (ADNOC Sustainability, 2021).

4.4. Socio-Economic Sustainability

A. Social investment offers a viable alternative to the traditional "welfare state" model, focusing on economic development and providing financial assistance and social services. (Midgley, 2017). ADNOC links commercial success to communal prosperity, promoting beneficial effects and value. It invests in social projects, education, and strategic collaborations, leveraging a robust strategy and a centralized CSR team. (ADNOC, 2023).
B. ADNOC aims to create a knowledge-driven economy by integrating creativity, scholarship, science, and technology. It offers comprehensive training programs for young Emirati citizens, and ADNOC Schools provide academic programs for over 6,700 pupils from Emirati and expatriate backgrounds. (Power, 2019).
C. Engaging with stakeholders can create a foundation for climate change advocacy, support technical innovation, and facilitate the adoption of low-carbon initiatives. This approach minimizes regulatory ambiguity and promotes cooperation for technology advancements. (Abreu et al., 2021). ADNOC's stakeholders significantly influence its performance as a reliable and socially accountable energy supplier. The organization actively seeks feedback and communicates with stakeholders to understand their perspectives, fostering mutually beneficial connections and generating value. (ADNOC, 2023).
D. Social risk management (SRM) is the systematic identification and evaluation of potential social hazards in a project, policy, or corporate endeavor. It involves activities like social impact assessments, stakeholder engagement, and the implementation of social management plans. SRM aims to achieve equilibrium among stakeholders, safeguard human rights, advance social fairness, and ensure the organization's long-term viability and standing. (Holzmann & Jorgensen, 2001). ADNOC prioritizes sustainable resource use and partnerships with local communities through social studies. Their social responsibility and stakeholder engagement strategies aim to manage potential impacts and maintain communication with the community. (ADNOC, 2022). ADNOC ensures compliance with Abu Dhabi/UAE laws and regulations, including fulfilling duties derived from international treaties, including those of the UAE as a party. (Almansoori et al., 2021).

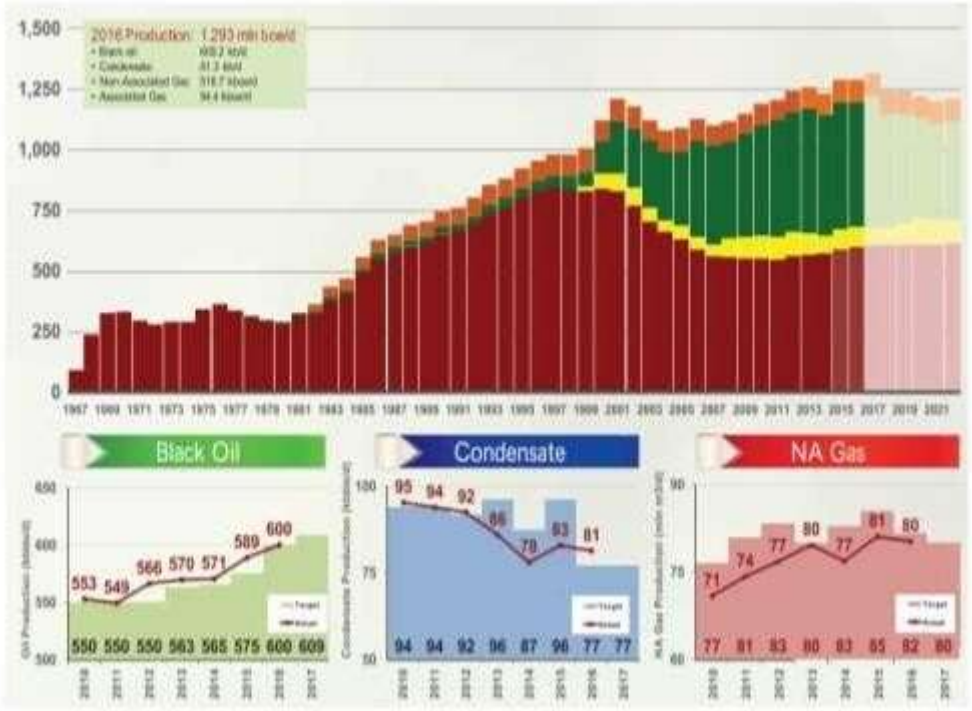
5. Petroleum Development Oman (PDO) (Sultanate of Oman)

Oman's oil and gas sector began modestly in 1925, but after 12 years of Saudi Arabia investigation, Sultan Saeed bin Teymur authorized a 75-year concession to the Iraq Petroleum Company in 1954, forming Energy Expansion (Oman and Thafar) Limited. (Heede, 2011). Despite initial challenges at Jabal Fohud due to tribal tensions, majority shareholders withdrew in 1959, leaving Partex and Shell to continue oil exploration. Yibal oil discovery in 1962 marked a turning point. (Nakhle, 2017). The first Omani oil export was in 1967, with a market value of $1.42 per barrel. In 1969, Compagnie Française des Pétroles reestablished ownership, resulting in a consolidation period in the 1970s.(Heede, 2011). 1973 oil price increase improved oil production in isolated areas, shifting exploration efforts towards eastern Oman, with Marmoul field, Amin and Amal fields influencing supply expansion and manufacturing. (Nakhle, 2017). In the 1980s, Oman's

O&G sector experienced significant growth, reaching 400,000 barrels per day and 3.8 billion barrels of reserves. In 2017, Oman became the first Middle Eastern nation to join the US-led nontraditional energy producers group, starting production at the Khazzan confined gas field (Heede, 2011).

Over the past five decades, Oman has experienced significant economic growth, largely due to oil prices. Oil and gas production contributes to 50% of GDP and government income. The Sultanate has invested $4 billion in gas projects, including a $19 billion Liquefied Natural Gas development. The government has $22 billion in oil and gas initiatives. (M. Ahmed et al., 2021).

Figure (3) PDO Oman O&G Production (1967-2017)



Source:(PDO, 2017)

Oman faces challenges in increasing oil output due to challenging crude oil reserves and maturing oil fields. The government has implemented economic diversification strategies like "Vision 2020" and "Vision 2040" to mitigate the economic impact of the oil industry. Vision 2020 aims to create a diverse economy based on renewable assets and promote non-oil alternatives. (Al-Mawali et al., 2016).

Petroleum Development Oman (PDO) is a leading entity in exploring and developing petroleum resources in Oman, focusing on safety, profitability, and sustainable development. It oversees diverse oilfields and uses advanced well drilling, resource management techniques, and technological advancements to enhance hydrocarbon extraction efficiency. (PDO, 2022b). Petroleum Development Oman (PDO) is the country's major oil producer, accounting for 70% of the country's crude oil output and gas production. Owned by the State of Oman, it manages a vast portfolio of over 126 producing fields and 5,000 wells. PDO employs 6,000 staff and collaborates with 35,000 contractors. Its primary goal is to ensure safety and ethical participation in hydrocarbon exploration, extraction, manufacturing, storage, and shipping within Oman. (Heede, 2011). PDO is a leading global

leader in tertiary enhancement technology, with Qarn Alam oil field being the first comprehensive steam injection enhanced oil recovery initiative globally. (Nakhle, 2017).

5.1. Marketing Key Value

Oman has the capacity to generate a daily output of crude oil and condensation above one million barrels, although it adheres to the production limits set by the OPEC+ alliance. The oil reserves of Oman are mostly composed of heavy crude, with the primary export market being China (PDO, 2017). Oman's government generates 70% of its revenue from oil and gas earnings, accounting for 30% of its GDP. The Ministry of Minerals and Energy revealed 5.2 billion barrels of crude oil and 24 trillion cubic feet of gas reserves. Oil prices have rebounded post-pandemic. (PDOman, 2021). Oman's 2022 government budget predicts $27.6 billion in revenues, with oil and gas sectors contributing 42% and 26% respectively. First half revenues were $17.4 billion, resulting in a $2 billion surplus. The government aims for its first yearly surplus in ten years. (International Trade Administration, 2023).

The Oman Oil Marketing firm, established in 2003, promotes and advertises oil and gas products to Omani oil corporations, including Petroleum Development Oman (PDO). It is a prominent energy firm in the Sultanate. (M. Ahmed et al., 2021).

5.2. Continuous Improvement

The firm's performance is attributed to its comprehensive integration, resulting in enhanced efficiency and cost reduction. By 2021, over 8,630 enhancement suggestions were generated, and over 500 teams used continuous improvement procedures. Over 220 successful CI projects addressed various activities. In 2020, 83 continuous improvement initiatives were executed, resulting in a cumulative value of 11 million US dollars. These initiatives improve infrastructure, training programs, and technology supply. (PDO, 2022b).

5.3. Social Investment

The success of a social investment initiative in Oman is attributed to a strong partnership between PDO, local communities, and the government. (Restucci, 2022). The program aims to advance community and region development, promoting sustainable oil and gas operations. It allocates financial resources to NGOs to support disadvantaged individuals, particularly those with visual impairments or disabilities. The strategy supports long-term development goals and oil and gas resource extraction. (PDO, 2022b).

5.4. Environment, Health, and Safety

Our organization in Oman prioritizes Health, Safety, and Environment (HSE) management to ensure workforce well-being and environmental protection, benefiting individuals, employees, and society as a whole. (Restucci, 2022). PDO focuses on sustainability, aiming for Zero Zero harm to shareholders, workers, and society. They strive for environmental excellence, surpassing regulatory standards, and generating value in Oman. PDO's environmental team aims for excellence in exploration and production, becoming the first oil and gas corporation in the area to achieve ISO 14001 accreditation in 1999. (PDO, 2022a).

Occupational health aims to improve well-being and reduce illnesses, injuries, and fatalities. PDO's occupational wellness team conducts risk evaluations, impacts monitoring, and radiation control guidance. The team includes Occupational Health Physicians, hygienists, healthcare advisers, doctors, nurses, and physiotherapists, providing specialized health assistance to management. (PDO, 2017). The organization has a comprehensive HSE

management system, covering seven phases from planning to closure. It provides guidance on contract risks, management state, bidders' practices, and minimum criteria. HSE assessment and training are provided to all workers, with the Program Development Office overseeing program execution and procurement of PPE. (Lafleur, 2023).

5.5. Sustainability vs Climate Change

Climate change is a global issue, with significant impacts in semi-arid regions like Oman. Increased warmth and decreased precipitation are widely documented, indicating climate changes. (Al-Mamary, 2021). Oman, a desert nation, is vulnerable to severe weather events due to water scarcity, inundation, and aridity. Extreme weather events, such as flash floods and sea-level rises, have increased from 2009-2014, posing risks to people and infrastructure. (Al-Awadhi et al., 2019). Climate change is a global concern, affecting coastal towns like Oman. It involves rising sea levels, storms, and erosion. Governments and stakeholders must collaborate to mitigate its impacts, using strategies like laws, regulations, taxes, and subsidies to promote sustainability and reduce emissions. (Buloshi & Ramadan, 2015). The global concern for environmental preservation is increasing, and Petroleum Development Oman is committed to promoting sustainable practices. Their renewable energy initiatives have gained global recognition for their balance between ecological preservation and economic progress, demonstrating the importance of effective cooperation across institutions. (PDO, 2018). PDO has launched a strategic plan to achieve carbon neutrality by 2050, focusing on reducing greenhouse gas emissions from its oil and gas operations, establishing alternative sinks, and enhancing energy efficiency through artificial lift and water management, which account for a significant portion of its energy consumption. (PDO, 2022).

The tasks of the plan were categorized into four axes, including waste management, greenhouse gas emissions, assessment of climate change impacts, and soil and groundwater.

5.5.1. Waste Management

Waste management is a major concern in the petroleum sector, with activities like drilling, extraction, storage, and transportation causing environmental damage. Oil sludge management and disposal are also significant issues. Offshore drilling methods, such as installation and unloading, are limited due to spatial constraints and environmental regulations. Onshore activities offer more opportunities for waste disposal. The primary goal is to provide an ecologically sound waste management methodology. Comprehensive evaluations are necessary before implementation. (James et al., 2022). PDO's operations generate significant waste streams due to their extensive scale and complexity. The Waste Management team collaborates with governmental and commercial groups to improve waste management practices and promote a circular economy. PDO has entered into contracts with recycling facilities and is involved in research and development initiatives to explore potential reuse and recycling. However, the disposal of produced water (PW) remains a significant contributor to energy and carbon emissions within PDO due to its significant water consumption in mature oil fields. (PDO, 2018).

5.5.2. Carbon Emissions and Greenhouse Gases

The extraction and use of oil and gas reserves significantly contribute to global energy output, with greenhouse gas emissions from burning fossil fuels from sources like power plants and refineries. Methane and carbon dioxide are significant contributors to global climate change, accounting for over 20% of its impact. The International Panel on Climate Change (IPCC) found that methane emissions have a greater capacity to contribute to global warming over 100 years than carbon dioxide. PDO monitors ambient air quality using three mobile units, reallocating sites using a risk-based methodology considering factors like sour fields and sensitive areas. (Saqri, 2017).

5.5.3. Groundwater and Soil

Human activities, such as excessive pumping and climate change-induced soil hydrology changes, significantly impact global groundwater systems. However, public ignorance and lack of understanding hinder these consequences, unlike the visible impacts of global warming on surface-water structures, such as floods and droughts, which can lead to irreversible remedial actions. (Stigter et al., 2023). The rise in carbon dioxide levels in the past century has led to rising global temperatures and a changing climate. Soil microbes play a crucial role in soil organic carbon turnover, influencing climate feedback mechanisms and greenhouse gas generation or consumption. However, predicting soil's role as a greenhouse gas source or sink remains challenging due to uncertainties in soil nutrients and microbial reactions. (Jansson & Hofmockel, 2020). Integrating water management in PDO can reduce aquifer water abstraction, maximize reuse, and improve output quality. Strategies like subsurface water shut-off technology, water balance analysis, practice consolidation, and forward osmosis technology can enhance national discourse. (Haddabi, 2022).

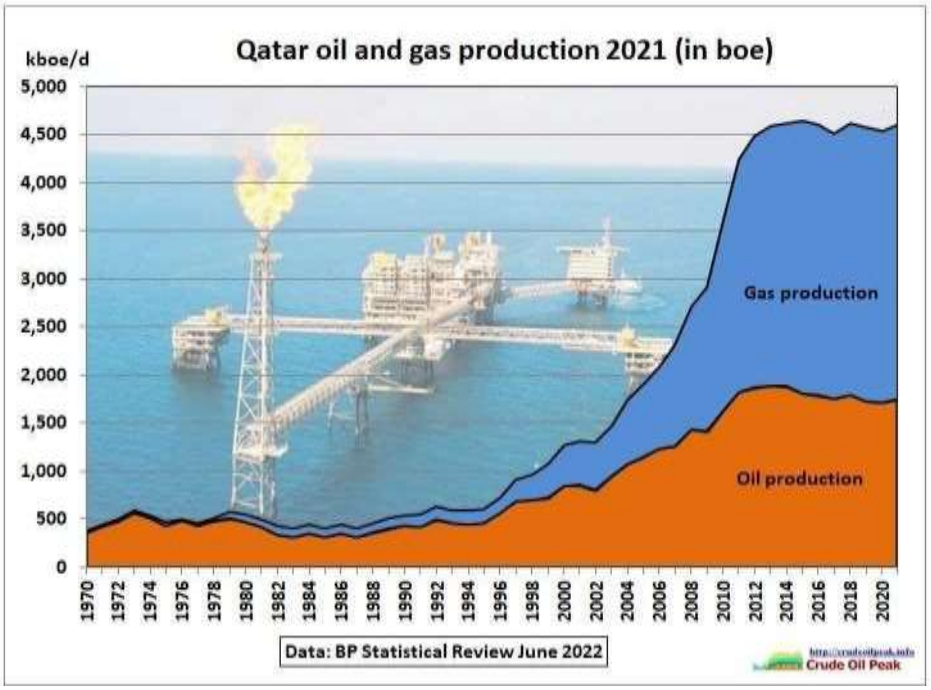
5.5.4. Impact Assessment and Submission

The Submission and Impact Assessment Team manages PDO's environmental compliance through a strategic integration of the Impact Assessment method throughout the project development cycle. They anticipate environmental, social, and community health outcomes, assess their importance, ensure environmental deliverables, control protocols, monitoring plans, and adherence to environmental standards through audits, ISO14001, and Environmental Certificates of Assurance. (Hinai et al., 2022).

6. Qatar Energy (Qatar)

Qatar, the third most oil and gas-rich nation, is the largest global producer of liquefied natural gas (LNG) and petroleum products. Its economy is primarily dependent on petroleum, but the exhaustion of reserves and instability of oil prices have led to a transition towards a diversified economy. Qatar Energy, founded in 1972, operates in the oil industry, including exploration, extraction, refining, and selling oil and gas (Al-Jadidah, 2019). The company is a government-owned enterprise with a dominant market position, enabling it to distribute goods globally. Qatar Energy aims to become one of the top national oil corporations globally, supporting the State of Qatar National Vision 2030 objectives. The company achieved a total output of 5.20 million barrels of oil daily in 2015. (Sergie, 2017).

Figure (4) Qatar Crude Oil and Gas Production



Source: (Mushalik, 2022)

6.1. Social Marketing Strategies:

Qatar Energy, a leading natural gas company, is leveraging advanced marketing techniques and technology to enhance its selling and exporting strategies, with plans to form alliances with global energy corporations. (Al-Jadidah, 2019). Qatar Energy's official website offers comprehensive data and information, catering to market services, consumers, and the community, with social marketing significantly influencing its sustainability strategies. (Qatart Energy Marketing, 2023).

Social media has transformed marketing strategies, requiring companies to shift from passive consumer engagement to active engagement and interaction with consumers. Traditional media channels are no longer sufficient for conveying marketing messages. (Parsons & Lepkowska-White, 2018). Qatar Energy effectively utilizes social media to engage with consumers, community, and stakeholders, showcasing its social responsibilities and environmental efforts to mitigate greenhouse gas emissions. (Qatart Energy Marketing, 2023).

6.2. Sustainability Initiatives

Qatar Energy is committed to socially responsible operations and environmental conservation, aiming for global sustainability through sustainable energy solutions. It fosters advancement, innovation, and prospects for a sustainable and socially equitable future. (Qatart Energy HSE, 2021). Qatar Energy is implementing a strategy to reduce greenhouse gas emissions by minimizing energy use, curbing methane emissions from upstream activities, and allocating resources to carbon management systems. The company uses SANGEATM software to monitor pollutants and assess regulatory compliance. Direct GHG emissions from Qatar Energy's facilities are primarily fuel combustion, flaring, and process emissions. In 2015, 77% of primary GHG emissions were attributed to fuel usage.(Qatart Energy HSE, 2015).

Figure (5) Qatar Energy Sustainability Basis

Source: (Qatart Energy HSE, 2022)

6.2.1. Climate Change Mitigation: Qatar Energy prioritizes social responsibility in tackling climate change and reducing emissions, addressing societal concerns like food access and water resources. The corporation develops a comprehensive climate change strategy for long-term sustainability. (Smaliukiene & Monni, 2020). The Industrial Revolution has led to a rise in greenhouse gas emissions, causing climate change. The Paris Agreement aims to limit global temperature to less than 2 degrees Celsius and 1.5°C. Countries sign the Low Emissions Development Strategy (LEDS) to reduce emissions, including mitigation, modification, and sustainable expansion. Qatar's energy system is crucial for a comprehensive strategy to reduce emissions and address climate change's impacts on ecosystems, economies, politics, and security. (Al-Noaimi et al., 2023). Qatar Petroleum is implementing a protocol for calculating and documenting greenhouse gas emissions at Ras Laffan Industrial City, requiring firms with 20 MW combustion installations to submit quarterly and yearly reports, which are verified by an approved third-party. (Buhidma, 2014).

6.2.2. Operational Responsibility: Qatar Energy prioritizes operational accountability in climate change, adhering to laws and utilizing operational capabilities to reduce emissions. The company aims for safety, a clean climate, and environmental sustainability, ensuring a healthy environment for its employees and community. (Qatart Energy HSE, 2022).

6.2.3. Social and Economic Development: Qatar Energy Company focuses on social and economic sustainability for sustainable development, ensuring individuals have the necessary capacities to meet their needs without compromising future generations'. They contribute to Qatar's National Vision 2030 by advancing environmental, economic, social, and human aspects, collaborating with society, executing social development projects, and sponsoring energy industry events. (Gojek, 2020).

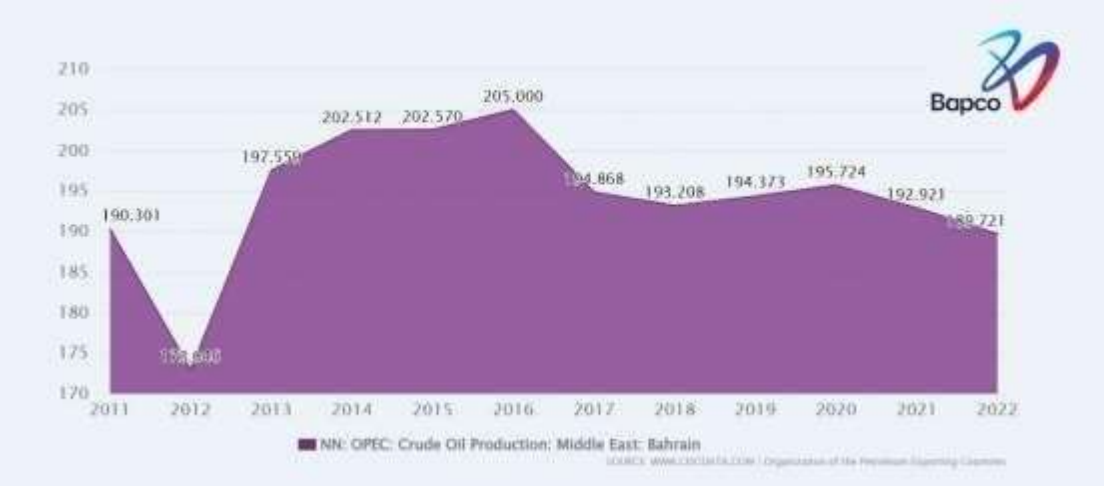
7. Bahrain Petroleum Company (BAPCO)

7.1. Introduction

Bahrain's economy heavily relies on oil, accounting for over 75% of the government's income. The 1932 oil discovery shifted the economy from traditional craftsmanship to

heavy industry and infrastructure development. (Khayati, 2019). Established in 1932, Bahrain's economy transitioned from marine fishing and pearl extraction to the oil industry, marking a significant economic milestone for the country. (BAPCO Media, 2023). BAPCO, founded in 1932, revolutionized the Philippines' petroleum and gas sector, overcoming global challenges like fuel price decline, oil exploration, competition, and modernization investment. (Ayari & AlHamaqi, 2022).

Figure (6) Bahrain Oil Production Chart (2011-2022)



Source: (Pulley, 2023)

BAPCO, the first oil firm in the Persian Gulf, is a key contributor to Bahrain's development. With a refinery and exports of over 85% of refined products and crude oil, it aims to manage a sustainable energy enterprise and contribute to Bahrain's Economic Vision 2030.(BAPCO Media, 2023).

7.2. Key Strategy

The Bahraini Oil and Gas Company prioritizes sustainability, people, and financial stability. To achieve international standards, the company has established sustainable strategies and projects, including waste management, renewable energy, water recycling, and modern agricultural methods. Bapco also collaborates with educational institutions to enhance school curricula with sustainable sciences, guiding students towards a culture of sustainability. (W. E. Alnaser & Merzaa, 2003). The company has adopted a human resources strategy, focusing on recruitment programs to attract scientific and technical competencies. Special programs for recruitment, selection, interviews, and tests are in place. The company prioritizes training to enhance technical skills and knowledge, as well as programs for creativity and innovation. A culture of sustainability is also prioritized. (Khayati, 2019). Bapco's financial stability strategy focuses on cost control and economic diversification to achieve its goals. The cost control program aims for sustainable economic performance, avoiding resource waste and rationalizing energy consumption. The economic diversification program ensures sustainability and avoids dependence on a single supplier. (Elseoud & Kreishan, 2020).

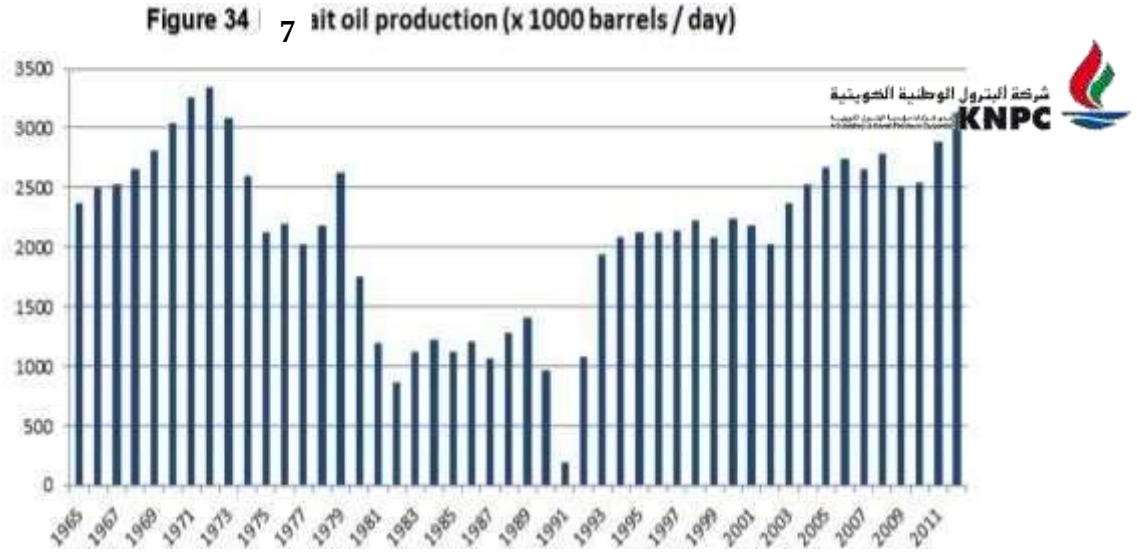
7.3. Social Marketing Initiatives:

Bapco's social marketing aims to promote sustainability and climate change awareness, extending beyond its energy institution role to achieve sustainable development goals in Bahrain. This includes using social media tools, company websites, workshops, seminars, and publications to spread initiatives across health, infrastructure, and education. (N. W. Alnaser, 2023).

Bapco's social marketing promotes sustainable energy use, promoting environmental balance and reducing greenhouse gas emissions through seminars, workshops, and periodicals, using various tools for awareness. (Alsabbagh & Alnaser, 2022).

8. Kuwait National Petroleum Company (KNPC)

In 1949, the Kuwait Petroleum Corporation established the MAA refinery, producing automobile, machinery, and aviation fuel. This led to self-sufficiency in fuel and exports. In 1960, the Kuwait National Petroleum Company (KNPC) was established, expanding activities like extraction, refining, research, and sustainability, with a production rate of 95,000 barrels/day.(KNPC, 2020). Kuwait's oil production reached 2.4 barrels/day, with the company expanding and opening projects like Abdullah Port refinery in 1989. Despite Iraqi invasion and 1991 oil well destruction, reconstruction campaigns resumed production and expansion. (Figure 7).



Source: (Statista, 2018)

KNPC has improved its conversion capacities through initiatives like the Clean Fuels Project, which expanded Mina Abdullah and Mina Al-Ahmadi refineries, establishing a fully integrated refining complex with 800,000 barrels per day. This enhances Kuwait's international standing in the oil refining sector, enhancing operational excellence, dependability, and safety standards. The company also aims to increase Kuwait's gas production capacity to 3.125 billion standard cubic feet per day. (KNPC, 2023).

8.1. KNPC Key Strategies, Vision, and Mission

KNPC focuses on four pillars: Innovation, Sustainability, Operational Excellence, and Talent Development. It prioritizes operational excellence, sustainability, innovation, and people development. Operational excellence streamlines processes, while sustainability minimizes environmental harm. Innovation uses technology and industry-leading strategies. Talent development fosters ongoing education, career advancement, and exceptional talent. KNPC maintains its position in the energy and petrochemical sector. (Capello et al., 2018).

8.2. KNPC Sustainability Programs

KNPC prioritizes sustainability as a core element of its operations, focusing on reducing greenhouse gas emissions, enhancing energy efficiency, and minimizing waste. They use cutting-edge technology and industry-leading methodologies to minimize environmental impact. KNPC also prioritizes social sustainability, actively participating in local communities and fostering health, education, and social well-being. They enforce strict safety protocols and provide extensive training programs to ensure a safe working environment. KNPC aims to balance economic expansion with social and environmental accountability by continuously assessing and improving their practices. (KNPC, 2018). KNPC is committed to energy management and greenhouse gas emissions reduction through green buildings. Pilot studies have been successful, with the Head Office receiving a "Gold" certification and the Mina Abdullah Admin Building receiving a "Silver" certification. (KNPC, 2021).

8.3. KNPC Social Marketing Activities

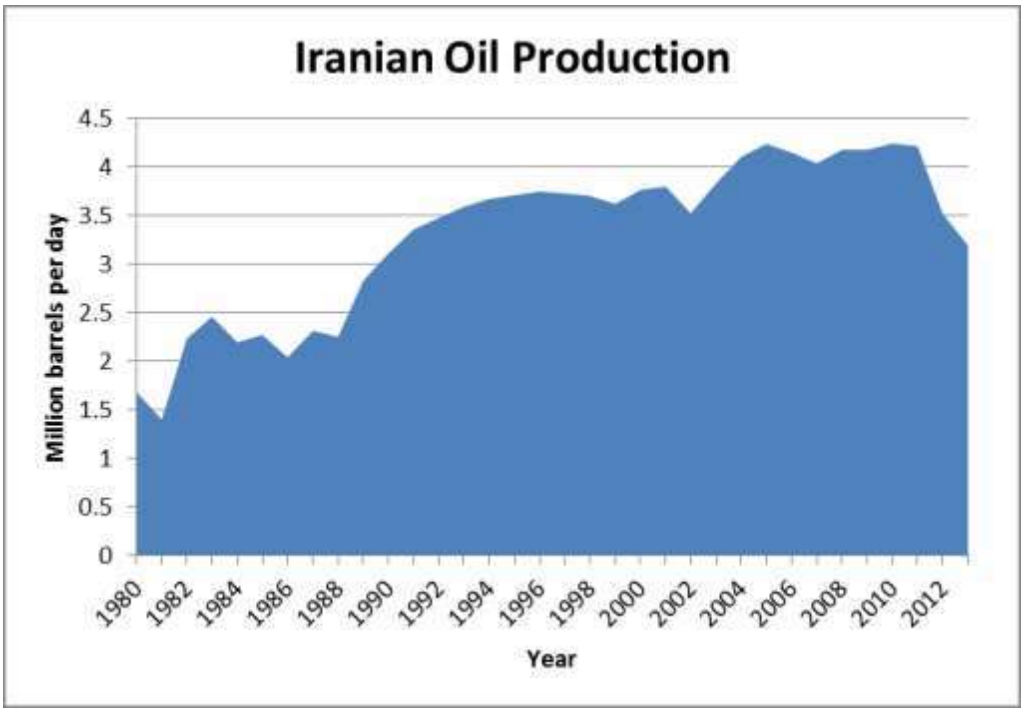
KNPC, a major oil and petrochemical corporation, uses social marketing to promote social responsibility and community involvement. Its programs focus on education, health, environmental protection, and community development. KNPC supports courses, fellowships, and vocational training, promotes health consciousness, and enhances infrastructure. It also invests in environmental conservation and community development initiatives. These efforts demonstrate KNPC's commitment to social responsibility. (Gothi & Thakur, 2023).

KNPC is an international organization tackling climate change through social marketing initiatives. They promote eco-friendly habits, invest in renewable energy, and reduce carbon footprint. They also monitor emissions and quantify emissions across their activities. KNPC collaborates with stakeholders to develop new solutions and contribute to national and global climate change initiatives. Their goal is to create a more sustainable future by prioritizing these crucial elements. (KNPC, 2021).

9. National Iranian Oil Company (NIOC)

In 1908, Iran's first oil field was discovered in Masjid Suleiman, transforming the country's carbon-based energy sources. This led to significant income and infrastructure development. The rise of Reza Shah Pahlavi and his son Mohammadreza Shah aimed to establish Iran as a global power. (Hanif, 2023). Iran, the second-largest oil producer among OPEC and the fifth-largest globally, has a long-standing oil industry with ancient resources. Despite recent advancements like the Yadavaran and Azadegan fields, the country's oil reserves continue to decline, indicating minimal potential for further discoveries. (Mohamedi, 2013).

Figure (8) Iran Oil Production Chart



Source: (Mohamedi, 2013)

Iran holds the fourth-largest confirmed oil reserves globally, accounting for 20% of its GDP. It is the third-largest gas producer, contributing 6.5% to global output. However, the oil sector requires $160 billion in investment to fully realize its capacity. Iran's market share is 10.3% worldwide.(Nakhle, 2022).

Since 1941, the National Iranian Oil Company (NIOC) has been a global leader in the oil sector, overseeing operations like exploration, drilling, production, research, and exportation. With substantial hydrocarbon reserves, the corporation prioritizes national and regional policies and collaboration with industrial nations to address energy supply and global market stability. The NIOC has implemented measures to create economic businesses and allocated resources to enhance knowledge and technology in the oil industry. (NIOC, 2023).

9.1. NIOC Key Strategies:

Mohsen Khojasteh-Mehr, the chairman of the National Iranian Oil Company (NIOC), has emphasized the need to improve contracts and negotiating power in the investment sector. He emphasized the importance of capital expenditure and revenue in oil operations, and the need for NIOC to adopt diverse strategies to achieve its objectives. He also highlighted the impact of U.S. sanctions on the country's oil business and the need to optimize domestic earnings. Khojasteh-Mehr also emphasized the need for downstream firms to participate in the upstream industry and to boost the export of engineering and technological services (Tehran Times, 2021).

9.2. NIOC Corporate Social Responsibility

Corporate Social Responsibility (CSR) is a business strategy that enables companies to take responsibility for their impact on society and the environment. The petroleum industry, under the government's responsibility, has been reassessing its perspective in recent years. In 2013, the Ministry of Petroleum established social counseling to standardize CSR measures, reduce risks, support petroleum projects, promote industrial development, and

establish a framework for CSR activities. (Hanif, 2023). The National Iranian Oil Company (NIOC) aims to gain global recognition, comply with international obligations, and engage with global organizations. The Ministry of Petroleum has established a CSR policymaking council, strategic council, and secretariat, appointed social advisors, and incorporated social responsibility clauses into the Articles of Association and oil contracts. A code of social responsibility has been developed for the petroleum industry, and guidance has been created to help companies establish CSR practices. The industry plays a crucial role in fostering cooperation and partnerships between stakeholders and corporations. (Media, 2023). The policy optimizes spending for organizations and oil companies, providing supervision and oversight. The Ministry of Petroleum has focused on social responsibility, extending its involvement to other sectors like government and public support. Despite sanctions on oil sales, the ministry has demonstrated remarkable performance in fulfilling its social responsibilities. (NIOC, 2023). The Ministry of Petroleum has provided humanitarian aid to flood-affected communities, invested in rural infrastructure, and boosted livelihoods through various initiatives. These measures, including Covid-19 measures, have fostered growth and poverty reduction, demonstrating the government's commitment to sustainable development. (Torbat, 2020).

10. Conclusion

An important observation about the operations of national oil firms in the Middle East is their significant presence in the global oil markets. This indicates that they play a substantial and noteworthy role in the combustion of fossil fuels on a worldwide scale. These firms faced significant worldwide criticism and were held responsible for contributing to the occurrence of climate change due to their substantial exportation of fossil fuels. As a result, firms were prompted to reassess their strategies and develop a fresh perspective focused on reducing the risks associated with climate change. Thus, it is evident from the initiatives discussed in this study that the organization is actively pursuing a sustainable vision and employing various strategies. The primary objective of these efforts is to safeguard the environment and collaborate with the international community in mitigating greenhouse gas emissions, which are responsible for the occurrence of climate change.

Furthermore, it is worth mentioning that these prominent corporations have undertaken several efforts, with the most significant one being their investment in renewable energy sources. The objective of these investments is for firms to establish ethical obligations to the local and worldwide communities with the aim of diminishing greenhouse gas emissions and alleviating the severity of environmental concerns. Investments have been made in many forms of clean energy, such as harnessing solar panels, wind power, water movement, and creating clean technologies for thermal electric power plants. The oil firms' efforts to invest in renewable energy were seen as an indirect recognition of climate change and the magnitude of their industry's contribution to this perilous phenomenon.

These oil firms have successfully used social marketing in various endeavors to increase awareness about the perils of climate change and the need to transition to renewable energy sources and technologies. The use of social marketing technologies has made significant contributions to the societies of Middle Eastern nations. To achieve this objective, substantial sums have been allocated for the implementation of awareness campaigns and the engagement of community projects aimed at mitigating climate change. The efficacy rates of social marketing differed across firms. For instance, Saudi Aramco pioneered climate change activities and effectively used social marketing campaigns to promote this objective. Simultaneously, it is observed that the Bahrain National Petroleum Oil Company did not meet the necessary standard for this. The success of initiatives is evaluated based on the quantity of fossil fuels they export.

Hence, it is seen that oil firms in the Middle East possess significant potential to aid in the alleviation of climate change and have environmental responsibilities towards the local and global population in concerning to this case.

11. Suggestions

Through observations on the performance of social marketing in oil companies in the Middle East, it is proposed to study some of the steps taken in unifying social marketing efforts for better change and sustainability. This crisis is not regional or local, but global, so international cooperation in the field of climate change cooperation is the best way. Through cooperation in new international cooperation and ideas related to this topic, companies that lack sustainability systems can benefit from this communication in restructuring. The systems are in place for the purpose of achieving optimal sustainability. Reviewing and resetting the comprehensive oversight system in companies is necessary. The purpose of the review is to place environmental performance oversight among the judiciary's priorities by monitoring emissions and pollution rates. Some companies consider that sustainability activities are among the duties of the safety and environment departments. This limits the effectiveness of spreading the culture of sustainability inside and outside the companies. Therefore, the best way is to place the responsibility for spreading the culture of sustainability on the shoulders of the social marketing department to reach both the internal and external audiences. It is also recommended to prepare double budgets to move towards exploiting sustainable (renewable) energy because of its role in changing individuals' consumption behavior. Finally, one of the most important priorities of social marketing for oil companies is to include confronting climate change among the dimensions of the social marketing mix.

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