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The Gulf Cooperation Council Oil Industry's Corporate Environmental Impact Reporting and Global Stakeholders: A Case Study of Saudi Arabia

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Abstract

Corporations form one of the primary contributors to environmental degradation. Less than 20 fossil fuel companies contribute approximately 35 percent of global carbon emissions, pointing to the significance of sustainable corporate actions such as environmental impact reporting. The paper applies an integrated literature review to explore a comprehensive scope of the global relevance of corporate environmental impact reporting in the GCC countries, focusing on environmental impact reporting in Saudi Arabia's commercial sector. The paper analyses Saudi Arabia's oil sector, which highly contributes to global carbon emissions regarding product production and consumption. The researcher used secondary data collection, exploring peer-reviewed journals and credible sources to establish whether Saudi Arabian companies' environmental impact reporting framework holds significance for the corporate sector's global stakeholders. Corporate Environment, Social, and Governance (ESG) reporting continuously gains stakeholder traction globally to minimise externalities like carbon emissions as part of the report that should accompany companies' regular financial statements. Stakeholders prioritise engagement with firms that practice sustainable business. Saudi Arabia's corporate sector global stakeholders include but are not limited to foreign investors, international regulatory bodies, trade partner countries, and corporations. The country's corporate oil sector has been at the forefront regarding its leading contribution to global carbon emissions. Saudi Aramco, a state-owned Saudi Arabia-based corporation, is leading globally in corporate environmental pollution. Saudi Arabia's commercial platform's externality contribution and the sector's massive global influence have attracted international stakeholder attention. Its sustainability stance will influence global stakeholders' decision-making. The research was limited by companies' use of varied accounting standards to report their environmental impact.

Keywords: *Saudi Arabia, global, oil, environmental, stakeholder, reporting, sustainable, economic growth, corporate.*

1. INTRODUCTION

Financial reporting aims at providing useful information that influences stakeholders' decision-making. Environment, Social, and Governance (ESG) reporting refers to disclosure thresholds alongside regular financial reporting that organisations fulfill to communicate their sustainability initiatives. For instance, carbon accounting is an ESG component that involves reporting on the amount of greenhouse gases an entity emits

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(Tsang, Frost & Cao, 2022). Stakeholders such as investors rely on ESG reports to evaluate their target venture choices. Consumers prefer engaging with firms that uphold corporate ethics. Society benefits from corporate externality control in several ways, including reduced carbon emissions. Environmental impact reporting, an ESG component and one of the critical research concern areas in non-financial reporting includes narrative and numerical information regarding an entity's environmental impact, usually accompanying the end-year financial reports. Accountants play a significant role in environmental accounting reporting alongside other experts. The reporting targets corporate environmental accountability. In the United Kingdom, the Companies Act of 2006 requires large firms that supersede £500 million in annual revenue, or have at least 500 staff, to disclose material non-financial information, including sustainability issues. The European Union successfully incorporated regulations requiring large entities with more than 500 employees to adhere to the EU Non-Financial Reporting Directive that mandates the targeted firms to disclose their environmental and social impact during their annual reporting (Helfaya, Morris & Aboud, 2023). ESG reporting is varied in the United States of America. For example, California requires firms that earn more than $1 billion in annual sales to report their social and environmental impact (Gipper, Ross & Shi, 2022). USA's Security and Exchange Commission is lobbying for all publicly-listed firms to disclose similar issues. Australia has used its Corporations Act of 2001 to propose climate reporting standards that will make ESG reporting mandatory for selected firms ("Environmental, social and governance risks: Disclosure requirements," 2022). There is no standard rule requiring ESG reporting for Saudi-based corporations.

Stunted business sustainability progress frustrates more than 80 percent of Saudi Arabian residents. Like other global market players, Saudi Arabian firms are progressively incorporating ESG reporting owing to its advantages and capability to create organisational competitive advantage (Chebbi & Ammer, 2022). However, corporate environmental sustainability is still in its infancy in Saudi Arabia. Saudi corporations have largely disregarded ecological stewardship. Saudi Aramco, a state-owned corporation, is the world's leading greenhouse gas emitter.

Saudi Arabia's global commercial role is rising as the largest GCC economy and a platform where foreign investors increasingly venture (Muasher, 2018). The country's commercial sector has an opportunity for more foreign direct investors as Saudi Arabia aims to supplement its oil income using other revenue-earning sources (Person, 2021). Unlike many regions, Saudi Arabia's foreign investment flows surged upward during the pandemic. The country's corporate platform is also a critical global player in commerce due to its trade ties with India, China, and other Asian nations. Saudi Arabia's recent economic trends, like joining the Shanghai Cooperation Organisation, increase the future role of its commercial sector in global trade.

Previous studies have overly focused on how environmental impact reporting affects individual firm performance. However, few studies explore how corporate environmental impact reporting practices such as carbon accounting could impact other corporate stakeholders globally. Saudi Arabia's commercial platform is currently undertaking various measures to attain sustainability. The paper explores whether corporate environmental impact reporting in the Gulf Cooperation Council Countries holds global stakeholder significance, focusing on Saudi Arabia's commercial sector. It analyses Saudi Arabia's oil sector, where the state-owned corporation, Saudi Aramco, leads globally regarding greenhouse gas emissions. The paper aims to find environmental impact reporting relevance and whether such action meets its target. It further looks into Saudi Arabian oil companies' environmental impact reporting framework and significance regarding the country's corporate sector's global stakeholders.

2. OBJECTIVES

- To find out the significance of corporate environmental impact reporting
- To establish the effect of Saudi Arabia's oil industry's corporate sector's environmental impact reporting on its global stakeholders
- To find out actions Saudi Arabia's commercial sector is taking regarding corporate environmental impact reporting with a focus on its oil industry

3. MATERIALS AND METHODS

In recent years, environmental impact reporting has gained increasing concern as information that should accompany regular financial reporting. Saudi Arabia's Saudi Aramco plays a significant role in environmental pollution. The prevention of such global-wide business externalities heavily relies on corporate accountability practices such as environmental impact reporting. However, despite Saudi Arabia's corporate sector's massive contribution to global carbon emissions, studies have yet to explore the issue of environmental impact reporting in the GCC countries and its global impact.

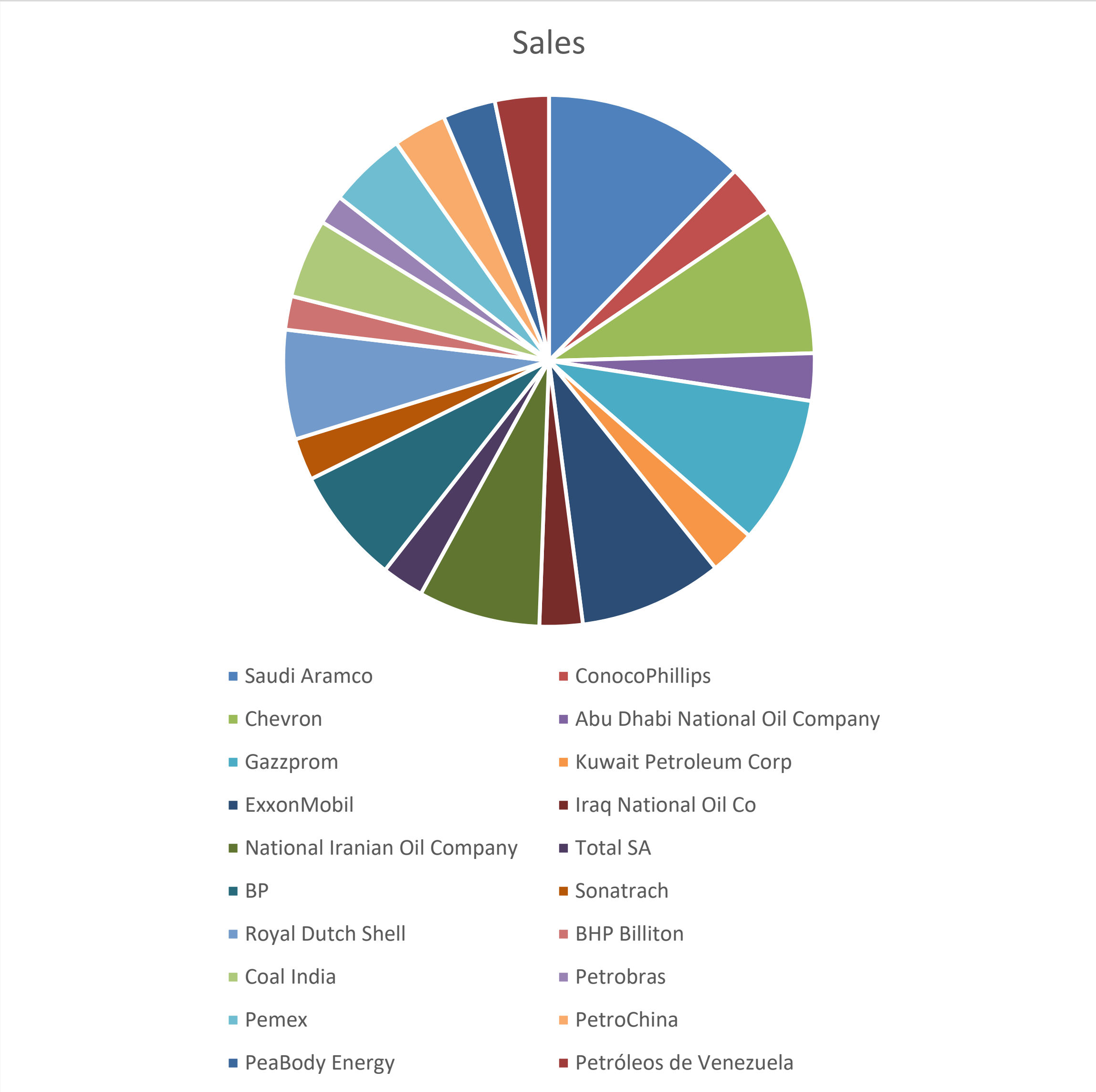
The qualitative research paper applied an integrated literature review to depict a comprehensive view of the global stakeholder significance of corporate environmental impact reporting in the GCC countries, focusing on environmental impact reporting in Saudi Arabia's oil industry. It explored previous empirical and theoretical literature to meet its objectives, relying on secondary data methodology.

The researcher collected data from secondary sources, including peer-reviewed journals and other scholarly sources such as but not limited to scholar.google.com and sciencedirect.com. The paper also used keywords from academic websites to achieve the best results. It enhanced the research reliability by citing sources under five years old before analysing the researcher's discussions and findings regarding the global significance of ESG reporting in the GCC countries, focusing on environmental impact reporting in Saudi Arabia's oil sector. The researcher explored previous related secondary research, evaluating their strengths, gaps, and limitations before arriving at a conclusion and recommendation for further studies.

4. LITERATURE REVIEW

According to Tsang, Frost, and Cao (2022), corporate environmental impact reporting holds significant global significance. Many parts of the globe prioritise voluntary non-financial Environmental, Social, and Governance (ESG) reporting. The developing topic has attracted researchers' and policy-makers' attention since ESG reporting is still at its infant stage, yet it is a critical success factor in today's organisational environment (Tsang, Frost & Cao, 2022). Previously, organisations relied on Milton Friedman's sole focus on shareholder wealth maximisation. However, stakeholders have established the crucial value of corporate social responsibility (CSR), considering that organisations and their surroundings are mutually dependent. Organisations draw their resources from the environment. Therefore, actions like pollution are detrimental to the environment and eventually to organisations. Firms must treat their employees fairly, an ESG social component, because they rely on them as the liaison between the organisation and other stakeholders. Corporations must have good leadership that steers the organisation to adopt good governance, such as board independence, to avoid shareholder mistrust, pointing at the role of ESG in enticing organizational efficiency. Organisational success depends on whether the firm creates value for customers, employees, trade unions, shareholders, financial institutions, suppliers, communities, political groups, and other stakeholders. Environmental impact reporting is critical in ascertaining a reduced carbon impact from corporations as major environmental pollutants. Sustainable organisations are dismissing the sole focus on shareholders for more sustainable stakeholder social responsibility.

Figure 1.1 Top Corporations for Carbon Emissions Globally from 1965 to 2017



(Taylor & Watts, 2019)

Organisations have a role to play in the environment. Although corporations embrace sustainability reporting, they are also the most significant contributors to sustainability degradation. Less than 20 fossil fuel companies contribute approximately 35 percent of global carbon emissions (Taylor & Watts, 2019). Many of the above companies in Figure 1.1 are in the Middle East. Saudi Aramco, the world's top fossil fuel emitter, is found in Saudi Arabia. Ninety percent of all emissions from the above entities emanate from their product consumption, including natural gas, thermal coal, petrol, and jet fuel. One-tenth came from extraction, refining, and delivery of the finished products. Taylor and Watts (2019) note that besides its massive production, Saudi Arabia is also among the top 7 oil consumers globally.

Lu, Hamori, and Tian (2023) established that corporate environmental impact reporting has a vital role in controlling externalities. China has experienced massive air pollution, prompting its government to incorporate stringent environmental impact reporting laws for corporations. According to Lu, Hamori, and Tian (2023), air pollution has led to health problems in China since 2010. China requires its cities to submit their air quality report regularly. Lu et al. (2023) found that ESG investments in China by a unit decreased air pollution by 0.334 units and enhanced social happiness, a welfare economics aspect, by 0.225 units. On the other hand, according to Habib and Mourad (2023) and Lin and Qamruzzaman (2023), ESG reporting leads to better firm performance. However, the authors disregard the role of ESG reporting on environmental degradation. On the other hand, Chen et al. (2023) link ESG impact reporting to positive stock exchange liquidity. The authors examined Chinese A-listed firms from 2015 to 2020, finding that positive ESG performance improved listed entities' stock liquidity. According to Yan and Li (2022), economic growth increases environmental pollution (Yan & Li, 2022). The social externality inhibits economic growth if corporations fail to contain ecological pollution via measures such as ESG reporting. Hessani and Bahini (2022) acknowledge the scarcity of literature discussing the relationship between ESG reporting and economic growth. They establish that current environmental impact reporting measures target non-polluting sectors. However, proper holistic ESG reporting can improve firm performance, hence economic efficiency, in the long run.

Grewal, Richardson, and Wang (2022) note that mandatory carbon reporting increases corporate responsibility toward the environment and reduces falsified carbon impact accounting. Firms with high carbon emissions record a financial performance decline if they fail to produce environmental impact reports (Houqe et al., 2022). Downar et al. (2021) note that ISO 14064-2 provides an accounting guideline regarding the quantification, monitoring, and reporting methodology for greenhouse gas impact reporting. The standardisation aims at reducing greenhouse gas emissions. UK-incorporated firms' carbon disclosure mandate reduced their carbon emission by 8 percent (Downar et al., 2021). However, Tang and Demeritt (2018) observe no relationship between carbon disclosure requirements and corporate emission levels.

According to Murshed (2022), Saudi Arabia's corporations have an extensive global influence. Saudi Arabia is the single biggest seaborne crude oil exporter globally. In 2021, the country contributed more than 17 percent of worldwide seaborne crude oil exports. It was the global leader in crude oil exports in 2021. Murshed (2022) explored the independent and combined effects of fuel export and environmental degradation on Saudi Arabia's economic growth. The author found that higher fuel export levels, labour force size, and capital formation boosted long-term economic growth. He also observed that carbon dioxide emissions diminish economic growth. Insufficient environmental regulations meant environmentally degrading crude oil consumption, extraction, and production.

The Oil Producing and Exporting Countries (OPEC) regularly strive to control global oil prices. Saudi Arabia is one of the 13 members of OPEC, which primarily constitutes oil-producing African and Middle-Eastern countries. OPEC members produce approximately 30 percent of global crude oil supplies. 2016 global oil prices were low, prompting OPEC to collaborate with other countries to form OPEC+. The blend produced about 40 percent of global crude oil supplies. As such, Pescatori and Nazer (2022) observe that since OPEC+ regulates about 40 percent of global oil supplies, consumers pay attention to the body's announcements. Its influence significantly controls global oil prices. OPEC+ used the demand versus supply formula to control global crude oil prices before the Covid-19 pandemic. When prices declined, OPEC+ cut crude oil supplies to make demand surpass supply. Consequently, the increase in demand pushed prices upwards in OPEC+'s favour. OPEC+ has cut and increased crude oil supplies for years to regulate global market prices. Saudi Arabia chairs the OPEC+ conglomerate. However, according to Ma, Xiao, and Bao (2021) and Quint and Venditti (2023), OPEC is only one of the multiple factors regulating global oil prices. The authors note that oil prices depend on global demand and other factors, such as political stability. During the Covid-19 pandemic, many countries incorporated lockdown regulations that halted businesses. There was a significant disruption in the import and export business, including oil. Despite OPEC+'s effort to regulate the market, global prices declined due to weak demand. Quint and Venditti (2023) also observe that global oil prices depend on political factors such as the Ukraine-Russia war that potentially cut crude oil supplies.

Bradshaw, Van de Graaf, and Connolly (2019) established that Saudi Arabia’s corporate sector has been the global oil kingpin for a long time. The country leads globally in terms of crude oil exports. According to Bradshaw et al. (2019), Saudi Arabia’s oil sector is the only producer with a production volume significant enough to bring online within thirty days and sustain for about 90 days, otherwise known as "Spare capacity." Saudi Arabia’s petroleum companies also hold a global competitive advantage in oil due to their low production cost. Its oil production cost averages $8 compared with Russia's $19 (Bradshaw et al., 2019). The relatively inelastic supply curve of oil means that the low capacity of the reserve has always accorded Saudi Arabia, its position as the market manager. Therefore, oil players informally recognise Saudi Arabia as the OPEC leader. The country’s commercial sector’s market share in the oil trade makes it difficult for other OPEC+ members to negotiate deals without involving Saudi Arabia. Saudi Arabia significantly steers OPEC’s response to global oil prices.

Mati and Rehman (2022) observe that Saudi Arabia will become the globe’s fastest-growing economy, increasing worldwide interest in the region’s trade platform. Pro-business reforms and increased oil prices spurred the region’s post-pandemic recovery. Analysts expect Saudi Arabia’s Gross Domestic Product (GDP) to increase by approximately 7.5 percent (Mati & Rehman, 2022). Mati and Rehman (2022) also note that Saudi Arabia’s economic growth depends on its corporate sector managing its oil reserves sustainably to avoid expenditure fluctuations with oil price changes. The authors pointed out that energy price reforms aimed at merging local with international prices were the key to financial savings and climate objectives.

Saudi Arabia’s economic position and the suitability of its commercial sector for doing business have made it a global hub for foreign direct investment (Hamrouni et al., 2019). Saudi Arabia’s Foreign Direct Investment (FDI) in 2019 was $4.5 billion, improving by 7.4 percent from the previous year. Inward FDI was approximately $4.6 billion in 2019, while outward FDI was $13.2 billion. The country’s Vision 2030 will create a more suitable environment for foreign investors, further improving Saudi Arabia’s strategic global position. The Vision focuses on strengthening the infrastructure, clean energy, tourism, mining, logistics, education, defence, health, and entertainment sectors. The World Bank ranks Saudi Arabia 62nd out of 190 countries globally in the Doing Business Index. Saudi Arabia is among the top economies globally regarding regulatory reforms-related improvement.

Although Saudi Arabia’s commercial sector has initiated programmes that prompt foreign employee deportation, its foreign workers' statistics indicate its global significance as a career destination. As of 2018, 37 percent of Saudi Arabia's population comprised expatriates (De Bel-Air, 2018). Seventy-five percent of the employed population consisted of foreigners.

Adekoya and Yaya (2022) note that the commercial sector’s input in Saudi Arabia’s Vision 2030 programme will enable its economy to surpass those of Japan and Singapore within 15 years. Vision 2030 attainment will enhance global stakeholders’ interest in Saudi Arabia. Vision 2030 aims to develop critical sectors like hospitality and improve citizens’ life quality. Saudi envisions itself as having a vibrant society, a thriving economy, and an ambitious nation by 2030.

According to Mahmood, Alkhateeb, and Furqan (2020), Saudi Arabia's corporate environmental reporting framework remains a global concern. Saudi Arabia’s firms emitted at least 500 million metric tonnes of carbon dioxide from fossil fuel and industrial-related factors in 2020. Saudi Arabia's corporate sector is a global leader in national carbon dioxide emission per capita at 19 metric tonnes per person. The country's oil trade sector is the leading contributor to national income. However, the sector also has dire environmental externalities. The country's upstream oil sector oil exploration causes mid-stream and downstream transmission to the end-user. Oil exploration and manufacturing cause various forms of pollution, including air, water, and soil. Mahmood et al. (2020) note that if Saudi Arabia's government could halt the oil industry's income by 1 percent, the country's carbon dioxide emissions would decline by 2.253 percent. Higher carbon dioxide emissions could also stagnate long-term economic development, setting off the income benefits from the segment. Therefore, sustainability is the solution to Saudi Arabia's long-term success and global competitive advantage as an oil-producing and exporting country. The country could commit part of its oil income towards carbon capture and renewable energy sources. Other countries have successfully applied renewable energy certificates as a sustainability measure. Mahmood et al. (2020) conclude that Saudi Arabia must engage in the trade-off between economic growth and environmental protection to maintain oil production and sustainable global competitive advantage.

Ammer, Aliedan, and Alyahya (2020) acknowledge few studies regarding the relationship between environmental sustainability and firm value in developing markets like Saudi Arabia. The Middle Eastern country's corporate sector has made several steps to attain sustainable oil production. For example, in 2018, the Saudi Stock Exchange (SSE) joined the United Nations Sustainable Stock Exchangetries programme, where corporations enhance their input regarding sustainable production and business, especially listed firms. The kingdom's commercial sector will strive to attain accountable production, consumption, and other climate-friendly actions through the programme. Isayan (2019), in support of Ammer et al. (2020), observes that Saudi Arabia's corporate sector's global significance in environmental sustainability has attracted the United Nation's attention to the country. Therefore, Saudi Arabia's environment ministry and the United Nations have signed a strategic cooperation pact agreeing to curb environmental degradation and protect the kingdom's natural resources to create a positive national and global impact (Isayan, 2019). Saudi Arabia funded the agreement, worth $25 million, where the UN will technically support Saudi Arabia's corporations in advancing human resources and institutional capacity to attain Saudi Arabia's goal regarding the National Environment Strategy and the National Transformation Programme. The United Nations Environment will assist Saudi Arabia's firms to incorporate its institutional regulatory designs suitable to support the programme.

Saudi Arabia's corporate sector, especially its oil segment, has spurred the country to be among the G20 countries representing two-thirds of the world population, 75 percent of worldwide trade, and about 80 percent of global economic output. Aldhubaib (2022) observes that Saudi Arabia's commercial sector is seeking alternative sources to replace oil as a sustainability move. The author evaluates Saudi Arabia's current energy guidelines and policies, considering that the kingdom is oil-based and primarily dependent on fossil fuel extraction. The country's trade sector's energy generation, which increasingly needs electricity, has been using environmentally polluting sources to serve its growing population. Consequently, Saudi Arabia has launched Vision 2030, aiming to have a diversified platform of energy sources to diminish the region's over-dependence on the oil sector. Aldhubaih (2022) observes that Saudi Arabia has a strategic global geographical positioning. It lies within the equatorial Sub Belt region, making it an international candidate for solar energy and other renewable energy sources. Saudi Arabia incorporated the King Abdullah City for Atomic and Renewable Energy (KACARE) to facilitate its clean energy movement. The city's primary goal is to create a promising energy future for the kingdom by incorporating alternative energy sources. The country established the city via a Royal Decree because its reliance on fossil fuels meant no regulatory body for renewable energy sources. The programme has primarily focused on meeting the increasing demand for electricity and minimising over-reliance on fossil fuels. It aims to save domestic oil consumption and attain a new environmentally friendly sustainable energy platform.

Khan, Abdo, and Ackrill's (2021) findings contradict those of Aldhubaih (2022). Khan et al. (2021) found that Saudi Arabia's renewable energy sector is at its infant stages and depicts a lower comparative advantage than other GCC countries. Second, the private corporate sector holds immense expertise in policy-making as it has experts, including in oil production. However, the authors established that Saudi Arabia's non-democratic political nature distracts the private trade sector from debating alternative sources for the oil segment due to fear of repercussions from the government, a significant stakeholder. To this end, some oil-sector statistics could be inaccurate because the records are solely government-generated and approved (Khan et al., 2021). Further, Saudi Arabia's oil production is majorly government-owned. Saudi Arabia's corporate oil sector also needs a proper renewable energy policy framework, deterring it from exploring other energy sources. On the other hand, the activation of renewable energy sources is a challenge due to the hierarchical nature of the government. Such policies have to pass several stages before approval, a bureaucratic process. Saudi Arabia also needs more inter-agency collaboration. KACARE incorporation occurred without significant sectoral energy player consultation. As such, KACARE, a new entity, operates independently despite the existence of other experienced entities in the energy sector. The government required energy participants such as ECRA and KACST to transfer their roles and responsibilities to the newly-developed KACARE, a hindrance to the kingdom's progress in eliminating over-reliance on oil consumption.

5. FINDINGS AND DISCUSSION

Saudi Arabia's corporate oil sector is a global pollutant amidst worldwide stakeholder concern over corporate sustainability practices. Saudi Aramco, a government-owned corporate, is a global leader in carbon emissions. The country's corporate segment, whose oil exports heavily impact the global market and other stakeholders, should incorporate sustainable environmental impact practices. Corporate environmental impact reporting is a viable action that meets its environmental externality reduction aim. This section discusses the general significance of corporate environmental impact reporting and whether the practice meets its target. It will also discuss Saudi Arabia's corporate sector, exploring whether the domain has any global stakeholders and sufficient significance to influence its corporate platform-related practices. It also evaluates whether Saudi Arabia's corporate environmental impact reporting stance will have a global stakeholder significance and any actions the sector is taking regarding corporate environmental impact reporting.

5.1. What is the Significance of Corporate Environmental Impact Reporting?

Less than 20 fossil fuel manufacturing companies contribute approximately 35 percent of global carbon emissions (Taylor & Watts, 2019). Corporations are the primary contributors to environmental degradation. Corporations are accountable to their stakeholders, including the government, society, environment, employees, and consumers at the local, national, and international levels.

In a McKinsey survey of 2020, at least 60 percent of respondents preferred sustainable packaging, even if it meant paying higher than average prices (Am et al., 2023). Seventy-eight percent of consumers in the USA regard the importance of sustainable living. Am et al. (2023) note that although many organisations claim their products and services are sustainable, they fail to meet environmental sustainability standards. In the UK, consumers are continuously adopting more sustainable lifestyles in 2022. In the same year, 38 percent of consumers paid extra for more durable products, while another 40 percent opted for brands that uphold environmentally sustainable values (Archer et al., 2023). Environmental sustainability has become a prioritized factor in many parts of the world, especially regarding consumers' perspectives of corporations.

Apart from consumers, other stakeholders also prefer environmentally ethical firms. Governments are progressively making it mandatory for corporations to produce environmental impact reports. China requires its cities to regularly submit air quality reports (Lu et al., 2023). The European Union successfully incorporated regulations requiring large entities with more than 500 employees to adhere to the EU Non-Financial Reporting Directive that mandates the targeted firms to disclose their environmental and social impact during their annual reporting (Helfaya, Morris & Aboud, 2023). In the USA, the Securities and Exchange Commission is working to ensure all corporations produce an environmental impact report in the future.

5.1.1 Does Corporate Environmental Reporting Meet its Target?

Mandatory carbon reporting increases corporate responsibility towards the environment and reduces falsified carbon impact accounting. Downar et al. (2021) found that UK-incorporated firms' carbon disclosure mandate reduced their carbon emission by 8 percent. Firms with high carbon emissions record a financial performance decline if there is public disclosure about their failure to produce environmental impact reports (Houqe et al., 2022). ISO 14064-2 provides an accounting guideline regarding the quantification, monitoring, and reporting methodology for greenhouse gas impact reporting. The standardisation focuses on reducing greenhouse gas emissions.

Stakeholders prioritise environmentally sustainable firms to create a positive environmental impact. For instance, some consumers would pay higher prices for ecologically sustainable services or products. On the other hand, investors, mostly following demand statistics, would easily venture into firms that uphold environmental ethics. However, corporations have different motives regarding environmental reporting. Some firms display social responsibility for commercial purposes but fail to meet legal environmental impact standards (Am et al., 2023). In response, governments and non-governmental institutions have taken action to mandate such reporting to reduce harmful carbon emissions and other environmental externalities. The paper finds that environmental impact reporting creates win-win outcomes for firms and their stakeholders. Corporations benefit by garnering positive publicity and enhancing their brand equity as other stakeholders gain from the satisfaction of reduced externalities.

Countries such as China that require their cities to submit regular air quality reports have recorded reduced negative environmental impact. ESG investments in China by a unit decreased air pollution by 0.334 units and enhanced social happiness, a welfare economics aspect, by 0.225 units (Lu et al., 2023). On the other hand, the study finds out that corporations are the major contributors to environmentally harmful carbon emissions globally. As such, targeting corporations to raise legal requirements to reduce environmental externalities is vital in attaining sustainable ecological health.

5.2. Does Saudi Arabia's Corporate Sector Hold Global Stakeholder Significance?

Saudi Arabia's corporate sector has numerous global stakeholders, including the government, international regulatory agencies, consumers, the environment, partner entities, employees, and others. Saudi Aramco, a state-owned corporate and world's top fossil fuel emitter company, is found in Saudi Arabia. Saudi Aramco contributes to 4 percent of global greenhouse gases. Other leading companies regarding carbon emission include the Abu Dhabi National Oil Company and Kuwait Petroleum Pump, both found in GCC member countries (Taylor & Watts, 2019). Saudi Arabia's corporate actions hold massive trade and environmental impact in the GCC region and other global areas. For example, Saudi Arabia heads OPEC+, the union that significantly controls global oil prices and consists of Saudi Arabia, Kuwait, Iran, Angola, Nigeria, Equatorial Guinea, Venezuela, the United Arab Emirates, Iraq, Algeria, Libya, Congo, and Gabon. Saudi Arabia has the second-largest oil reserves globally.

Ninety-nine percent of petroleum and crude oil emissions emanate from consumption rather than production (Taylor & Watts, 2019). Only one-tenth of such emissions come from extraction, refining, and delivery of finished products. Saudi Arabia is among the top 7 oil consumers globally.

Saudi Arabia's corporate sector’s global position as a significant environmental polluter attracts international stakeholder interest in its major corporations, especially oil manufacturing companies. The country's environment ministry and the United Nations, one of Saudi Arabia’s corporate stakeholders, have signed a strategic cooperation pact agreeing to curb environmental degradation and protect the kingdom's natural resources to create a positive national and global impact (Isayan, 2019). Saudi Arabia funded the agreement, worth $25 million, where the UN will technically support Saudi Arabia in advancing human resource and institutional capacity to attain Saudi Arabia’s goal regarding the National Environment Strategy and the National Transformation Programme.

Saudi Arabia’s corporate sector makes it a benchmark country for many states as analysts observe the Arab nation will become the globe’s fastest-growing economy, increasing worldwide interest in the region (Matti & Rehman, 2022). The country’s commercial growth primarily depends on its oil trade. Saudi Arabia’s economic growth also relies on how the corporate sector manages its oil reserves sustainably.

Saudi Arabia’s corporate platform has several international stakeholders. First, Saudi Arabia is the GCC region's leading foreign investment hub. The World Bank, a global corporate stakeholder in Saudi Arabia's commercial sector, recognizes the country as among the top economies globally regarding regulatory reforms-related improvement. This stance will enhance its foreign direct investment platform. Second, as of 2018, Saudi Arabia's expatriate base, a major corporate stakeholder, is attributed to 37 percent of the country's population (De Bel-Air, 2018). Seventy-five percent of the employed population consisted of foreigners. Third, Saudi Arabia's tourism sector is globally significant. The World Trade Organisation ranks Saudi Arabia as the globe’s 2nd fastest growing tourism destination (Basendwah & Rahman, 2021). Saudi's economy will surpass Japan's and Singapore's in 15 years if it adheres to its Vision 2030 principles, improving its commercial position in Asia and the rest of the world.

5.3. Will Saudi Arabia’s Corporate Environmental Impact Reporting Stance Have a Global Stakeholder Significance?

The global oil market heavily depends on Saudi Arabia’s corporate sector. Saudi Arabia’s corporate sector is a top oil producer whose exports stakeholders from many global regions heavily depend on. Factors inhibiting the sector’s oil production capacity could negatively impact the global market, one of Saudi Arabia’s corporate segment stakeholders. However, Saudi Arabia’s corporate platform is a global leader in carbon dioxide emission per capita, recording an average of 19 metric tonnes per person as of 2020 (Alkhateeb & Furqan, 2020). Oil exploration and manufacturing cause pollution that leads to worldwide externalities, including air, water, and soil pollution. Mahmood et al. (2020) note that if Saudi Arabia's corporates could halt the oil industry's income by 1 percent, the country's carbon dioxide emissions would decline by 2.253 percent. The commercial provisions of Saudi Arabia's Vision 2030 would lead to the country’s corporate sector’s alternative sustainable income sources since the programme incorporates other revenue-earners such as tourism and foreign direct investment. Higher carbon dioxide emissions could also stagnate long-term economic development, setting off the income benefits from the oil segment. Therefore, Saudi Arabia's long-term success as a global trade landmark, considering its global competitive advantage in tourism, foreign direct investment, and oil trade, depends on its corporate sustainability practices, such as corporate environmental impact reporting.

Saudi Arabia's oil corporation's practices influence global trade actions. Saudi Arabia leads the OPEC+ partnership, a primary stakeholder in its corporate sector. As one of the fastest-growing economies, the country wields massive global influence. Saudi Arabia's oil sector emissions contribute to global warming. The country's corporate sector's sustainability initiatives will influence other commercial domain pollutants, especially competitors in the worldwide oil industry, to incorporate environmental impact reporting in pursuit of sustainability-related competitive advantage.

Saudi Arabia's corporate sector wields global employment significance. The nation attracts international attention due to its substantial foreign residence and employees. Unsustainable business practices could deteriorate economic growth and affect foreign employees. For instance, they will not remit their income to their home countries. They may lose their jobs following their employers' unsustainable practice-related performance slump, such as losing ethical competitive advantage.

Saudi Arabia's oil sector sustainability means stable global prices. Environmental impact reporting is a sustainable corporate action. Saudi Arabia can significantly control global oil prices as the OPEC+ leader. The country's corporate sector can wield international price regulations, affecting multiple stakeholders globally. Saudi Arabia's oil production reduction could impact global prices as the second-leading country in international oil reserves. The paper establishes that unsustainable manufacturing could mitigate economic growth, increasing oil production costs and prompting other multiplier effects like slumped oil supplies. Such a scenario can also exert adverse pressure on other global economies due to the impacts of inflating fuel prices.

A leading consumer. Oil consumption causes more pollution than its production and supply. Besides being one of the world's top producers, Saudi Arabia is also among the leading global oil consumers. The country's carbon emission capacity attracts international environmental regulatory bodies such as the United Nations. The oil industry's actions, such as corporate environmental impact reporting, form one of the major concerns for such global stakeholders towards externality minimisation.

A foreign investors' hub. Saudi Arabia's commercial sector registers one of the highest foreign investor inflows. The country's corporations lag in terms of corporate environmental practices such as carbon accounting. Failure to implement such practices will increase the country's commercial sector's contribution to global warming, considering the corporate culture and regulatory requirement potential impact on new business entrants.

5.4. What is Saudi Arabia's Corporate Sector doing regarding its Environmental Impact Reporting?

Saudi Arabia's corporate sector has taken several actions to attain sustainable oil production. For example, in 2018, the Saudi Stock Exchange (SSE) joined the United Nations Sustainable Stock Exchange programme, meeting other global corporations to enhance their input regarding sustainable production and business, especially listed firms. The kingdom's business sector will strive to attain accountable production, consumption, and other climate-friendly actions through the programme.

Saudi Arabia's environment ministry and the United Nations have signed a strategic cooperation pact to curb the country's corporate sector's environmental degradation and protect the kingdom's natural resources to create a positive national and global impact (Isayan, 2019). Saudi Arabia funded the agreement, worth $25 million, in pursuit of its corporate sector's concerns. The UN will technically support Saudi Arabia's commercial platform in advancing human resource and institutional capacity to attain Saudi Arabia's goal regarding the National Environment Strategy and the National Transformation Programme.

Saudi Arabia’s commercial sector government representatives are pushing its corporate sector to seek alternative income sources to replace oil as a sustainability move. The country has launched Vision 2030, aiming to have a diversified platform of energy sources to diminish the region's over-dependence on the oil sector. Some of the identified alternative revenue sources include tourism and foreign direct investment.

6. CONCLUSION

Corporate environmental impact reporting has a massive significance in society globally. It affects business stakeholders, including society, the government, corporations, customers, and investors. Less than 20 fossil fuel manufacturing companies contribute approximately 35 percent of global carbon emissions, a significant consequence of inadequate corporate environmental impact reporting. Corporations significantly contribute to carbon emissions, with Saudi Aramco, Saudi Arabia’s state-owned corporation, leading as the world's number one environmental polluter firm. Saudi Arabia’s corporate segment is undertaking various actions to attain a sustainable sector. Sustainability reporting, such as carbon impact accounting, has depicted a reduction in carbon emissions by firms that practice such non-financial reporting. Stakeholders, including consumers and regulatory bodies, have become more conscious of environmental sustainability and firms' role in environmental degradation. Consumers display loyalty to environmentally-sustainable businesses as governments strive to make it mandatory for firms to report on their environmental impact. Saudi Arabian oil corporations' environmental role has attracted attention from international regulatory bodies such as the United Nations. The country's corporate oil sector’s global influence, including its sustainability efforts, leading role in OPEC+, foreign direct investment, rapid economic growth, and the large number of foreign residents, make Saudi Arabia an international landmark regarding commerce. Incorporating sustainable business practices in Saudi Arabia’s commercial sector could reduce the country's carbon emission levels, as evident in the reference case of China. Saudi Arabia’s corporate oil sector, which makes the country have the second largest oil reserves globally, regulates global oil prices. The country’s local consumer stakeholder base is also amongst the leading oil consumers globally. Saudi Arabia's corporate sector’s sustainability reporting will have a global impact. Incorporating stringent corporate environmental impact reporting is a vital milestone in attaining sustainable corporate practices, considering the effect that Saudi Arabia's oil trade and consumption wields nationally and internationally.

7. LIMITATIONS

The research was limited by companies' use of varied carbon accounting standards to report their environmental impact. The paper also establishes that accountants play a significant but partial role in environmental impact accounting. Environmental impact reporting requires environmental experts’ professional scrutiny to attain ISO 14064 standards. Future researchers should intensively analyse the impact of environmental impact accounting on a firm's externality contribution. International regulatory agencies should strive to streamline corporate environmental impact reporting standards.

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