



A Corpus-Based Investigation of Saudi Corporate Discourse for Environmental Concerns

Ansa Hameed^{a*} 

^aAssistant Professor, Department of English, Prince Sattam bin Abdulaziz University, College of Science and Humanities, Al Kharj, Saudi Arabia. Email: a.zahoor@psau.edu.sa

Received 8 September 2022 | Received in revised form 9 November 2022 | Accepted 12 December 2022

APA Citation:

Hameed, A. (2022). A Corpus-Based Investigation of Saudi Corporate Discourse for Environmental Concerns. *Eurasian Journal of Applied Linguistics*, 8(2), 259-271.

Doi: <http://dx.doi.org/10.32601/ejal.911559>

Abstract

The present research intends to study the online corporate discourse of the selected Saudi organizations concerning contemporary environmental issues. For this purpose, a specialized corpus based on the material obtained from the web pages of a number of organizations working directly or indirectly for environmental maintenance was prepared and analyzed. The findings obtained through the SketchEngine tool were analyzed manually further to probe into the prominent ecological themes. The results disclose that eco-friendly engagements are offered from various perspectives. The organizations are anxious about many key ecological issues like the conservancy of biodiversity, the use of renewable and non-renewable energy sources, and the fortification of the natural environment, etc. A variety of strategies are outlined to meet the goals that can lead to a green future. The web data describes environmentally beneficial concepts and policies taken by the selected corporations, however, portrays fewer actions that have been taken in this regard.

© 2022 EJAL & the Authors. Published by Eurasian Journal of Applied Linguistics (EJAL). This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (CC BY-NC-ND) (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Keywords: environment; corporate discourses; corpus analysis; environmental sustainability.

Introduction

Climate change, global warming, waste management, water supply, species extinction, etc. there is a never-ending list of ecological concerns, sensitizing the debate of human existence on planet earth. The issue is that the planet earth is the only known habitable abode for them and so far no planet B is in the options. This is an alarming situation that has grabbed the attention of focal persons and organizations from state to intercontinental levels. [Taher and Hajar \(2014\)](#) comment that environmental concerns have been centralized and prioritized in global policies. Thus, environmental sustainability is a key ingredient for the United Nations to be included in the 2030 Agenda for Sustainability Development ([UN Environment Programme, 2015](#)). The agenda claims “to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking exigent action on climate change, so that it can support the needs of the present and future generations.” ([UN Environment Programme, 2015](#)). The environmental sustainability goals contain a long list of key areas that needed to be concentrated by all the countries around the world for a sustainable planet. [Winarno \(2017\)](#) remarks that oil-bearing countries like the Middle East have more responsibility in this regard.

Bearing in mind the critical eminence of environmental sustainability, the Kingdom of Saudi Arabia has also initiated some decisive steps. These steps include everything from environmental campaigns to ecological endeavors, like Saudi Green Initiative (SGI), Let's Make it Green drive, Green Riyadh Project, Environmental

* Corresponding Author.

Email: a.zahoor@psau.edu.sa

<http://dx.doi.org/10.32601/ejal.911559>

Laws, etc. However, such green efforts are also criticized as dramatic stunts of an oil-producing country (Kennedy, 2021). Seznec and Mosis (2021) are also of the view that implementations of such environmental standards are beyond the power of the Kingdom as they have to decide between their economic and environmental affairs.

On the other hand, such efforts are also appreciated for the anticipated green goals. According to Alshuwaikhat and Mohammed (2017), the Kingdom's transformative Vision 2030 has picked environmental sustainability as one of the most anticipated goals. Hameed, Jabeen, and Afzal (2022) report that the Saudi Green Initiative aspires to achieve environmental sustainability with the assistance of various national and private sector organizations. For this purpose, various national organizations have been established to dispense the responsibilities and execute the actions. Outlining the goals, concerns, roles, and actions is one of the primary tasks for such organizations that are technically termed corporate discourse.

Discourse as language use is not limited to conversations and interactions. More appropriately, it is a term that can be used to designate situations where linguistic items participate with contextual cues to express their meanings. Kamalu and Osisanwo (2015) elucidate that language is related to context with help of various expectations, preferences, norms, and practices. Due to expanded horizons of information, contemporary discourses have a variety of forms, from media to politics and from social to corporate. The present study deals with the corporate discourse. As described above, corporate discourses are indicators of corporate perspectives, policies, and practices (Breeze, 2013), and thus are often important to analyze and scrutinize. Such examination helps the researchers to understand the ways necessary information is presented to the audience by the organizations. Griffin (2017) asserts the important role played by corporate discourses in the upgrading of environmental concerns through their strategic role. UN Global Compact (2016) also enlists the environment as one of the four areas to be focused on by the corporations, with a specific emphasis to:

1. provision of preventive methods to tackle environmental problems
2. commence initiatives to encourage environmental concern
3. inspire to develop and diffuse environment-friendly technologies in businesses

Thus, it is the need of time for businesses around the world to promote environmental concerns in their communication. This also falls in line with the social ecology framework that holds that large organizations have a vital role in creating social and environmental problems and thus can play a more active role in eradicating them (Gray, Owen, & Adams, 1996).

In the contemporary world, web portals are convenient ways to share information with a huge audience, thus often corporations present the necessary information on their official websites. In other words, corporate discourses have been presented to a huge audience through online portals. The corporate information is provided in various ways like Home page introductions, corporate social responsibility reports (CSR), about us pages, mission and vision statements, yearly reports, meeting reports, emails, etc. Thus modern corporate discourses can also be termed as e-discourses serving a huge audience than ever.

The current study examined the Saudi corporate discourse with respect to environmental or ecological concerns. In particular, it dissected the online discourse to see how these organizations offered their green concerns. Smith (2017) comments that "the climate discourses employed by highly significant corporate actors thus make for a particularly relevant, yet largely-neglected, area of research" (pg. 1). Thus, the web page information of the important governmental and non-governmental organizations in Saudi Arabia (involved in environmental activities) were considered a primary source of data. The corporations selected for the purpose provide English content on their websites as part of being an international community. Moreover, 38% of the population is not local (migrant workers) so English is provided for communication and understanding. Besides, the Saudi Arabia has opened new vistas for international business communities to settle down their businesses in the Kingdom. For the said purpose, English has been introduced as a necessity to attract and settle local and global communities. The English versions of the selected websites are not just translated versions of the original Arabic pages but are designed and prepared in the English language with the purpose.

Specifically, the current study aimed to achieve certain objectives to make this study more convincing and plausible, namely: (i) To analyze the selected Saudi web-based corporate discourses for ecological apprehensions; (2) To build the lists for the key lexical terms; (3) To examine the collocates of the word "environment"; (4) To examine the environment-related ideology portrayed through the key concepts (in form of words) and collocations graph; (5) To study the ecological concerns within the framework of environmental sustainability; and (6) To ascertain the ideological stances promoted through lexical choices as environmentally beneficial, destructive, or ambivalent. To achieve these objectives, the study framed the following question:

What environmental sustainability concerns are articulated in the selected Saudi corporate discourses?

The research is significant as it examined the Saudi corporate discourses from environmental sustainability frameworks, which are important concerns for the present world, as Winarno (2017) states that environmental issues have no geographical boundaries. It aims to bring awareness regarding how the Saudi government aims to work on climate-related concerns. It would help to also understand the active role of the Saudi Kingdom in achieving the environmental sustainability goals outlined by the United Nations. Moreover, it is a contribution to the field of linguistics, discourse analysis, and Ecolinguistics.

Literature Review

The first important term to be considered is corporate discourse. As generally defined as language in use, discourses have become an important concern for analysis for their powerful implementations and implications. Fairclough (1992) and van Dijk (1985) explain discourse as a cultural and social produce that aids in generating, replicating, and transmuting ideologies. Fairclough (1992) asserts that language paves ways to create ideologies in various shapes and forms and is utilized purposefully by various powerful agents. Discourses as the carrier of ideologies (Pihlaja & Musolff, 2017) provide extensive data to the researchers to explore different social, political, educational, etc. phenomena. Along the lines, corporate discourses are defined as a key tool to perform corporate goals as “it is what ‘talks’ and ‘writes’ corporations into being” (Boden, 1994). Breeze (2013) comments that corporate discourses are not simply language in use rather they are based on some consistent though not explicit ideologies. She further asserts that corporate discourses are used to create corporate images and thus are important for businesses (Breeze, 2013).

Jaworska (2020) points out that corporations use discourse purposefully to preserve their identity and ideological work. de Paula and Wood Jr (2009) consider discourses as an important part of corporations to convey myths and tales of success. Thus, corporate discourses are important to analyze in order to reveal what stories these organizations tell to their clients or users. Liu and Li (2021) have done research on the corporate discourse in the form of apologies and reported that such corporate discourses help to cater to crisis management. Raza, Rather, Iqbal, and Bhutta (2020) analyzed corporate discourses in the form of social responsibility reports to examine their connection with customer behaviors. Fuoli and Hart (2018) conducted an experimental study on the use of trust-building strategies found in corporate discourses.

However, the corporate discourse comes in a variety of forms from the most common mission and vision statements to the most specific social responsibility reports. Hossain (2017) comments that corporate chronicles are found in various versions like annual websites, sustainability reports, annual reports, and unified reports. The present research focuses on the most recent form of corporate discourse as presented on their web pages (page content and attached documents). With the internet as a household luxury, having an e-page or a website has become an important requirement for all types of organizations and companies (governmental as well as non-governmental). Thus, every agency (from government departments to commercial companies) focuses to provide extensive material (in a variety of forms like graphics, texts, audio, videos, etc.) on their website about what they do, want to deliver, and mission to focus and believe to achieve, etc.

According to Koller (2008), advertisement (what they do or what they sell) is an important dimension of the corporate discourse; moreover, among all text is the central unit to carry meanings. He further argues that text serves both internal and external stakeholders of the company to communicate their concerns with the wider audience. This in turn builds trust factor for them (Fuoli & Hart, 2018). Researchers often analyze websites as a crucial form of corporate discourse. For example, Pollach (2003) analyzed the material from six websites to analyze how corporations communicate ethical standards to the users. Tenca (2018) evaluated the *About Us* section on global websites to examine the commercial communication system.

As a form of discourse, corporate treatises are analyzed in various ways, from using simple content analysis to critical ideological examination techniques. Corpus analysis is also an effective approach to scrutinizing such discourses from various perspectives. Since the advent of computer technology in the 19th century, it has become an effective analysis procedure. Being operative in handling the huge corpus of data, often researchers use it to identify linguistic patterns and ideological stances (as shaped by the language use). According to Baker (2006), it helps to provide quantitative proof of the existence of discourses by assisting researchers to recognize repetitive linguistic patterns of language and further to expose secreted meanings in lexical items.

Corporate discourse has also been used by researchers for a variety of purposes to analyze both spoken and written discourses, for example, Baker and McEnery (2015); Grundmann and Krishnamurthy (2010); Hameed, Jabeen, and Afzal (2021); Mao, Li, and Xue (2014); Rafatbakhsh and Ahmadi (2019); Ras (2017); Rutherford (2005). Hameed, Jabeen, and Afzal (2021) carried out a corpus-based analysis of Western news media for the representation of Vision 2030. Ras (2017) carried out a corpus-assisted discourse analysis of UK news reporting on corporate fraud. Grundmann and Krishnamurthy (2010) and Grundmann and Krishnamurthy (2010) used the corpus technique to analyze media discourses on climate change. Thus, the corpus is an effective technique to analyze corporate discourses.

Another important dimension of the study is to focus on the ecological concerns in the selected corporate discourse. Hansen (2018) asserts that there is a strong link between language patterns and human existence. The world at the moment has been fronting several quandaries and environmental issues are among the major ones. As stated above, numerous climatic issues have put the survival of many living species in peril. That is the reason sustainability has become a prime agenda for the world today. The term sustainability is precisely defined by Kotob (2011) as the progress made to achieve the requirements of the present-day generation without disquieting the forthcoming generations' capabilities to meet their needs. Sustainability refers to several domains like economics, social life, businesses, etc. but the present research deals with the aspects of environmental sustainability (as per the objectives of the research). Talking about environmental sustainability includes every policy, action, practice, etc. taken to preserve the ecological balance for the long term. It has a multitude of aspects to be addressed, mainly through the use of language. Castells (2009) sheds light on the importance of discourses in transforming sustainability merely from a "condition to a public issue to a policy concern" (pg. 316). However, while connecting language with the environment, the ecolinguistics perspective cannot be ignored.

Alexander and Stibbe (2014) define ecolinguistics as "the study of the impact of language on the life-sustaining relationships among humans, other organisms, and the physical environment" (pg. 105). Thus, the present study becomes from simple discourse analysis to ecological discourse analysis, focusing on the environment and environmental sustainability as prime leads. He and Rong (2018) define ecological discourse analysis as an "ecology-oriented analysis of discourse from the perspective of linguistics based on an ecosophy" (pg. 66). The present study utilizes Alexander and Stibbe (2014) framework that disseminates the ideological stances promoted through lexical choices in any kind of discourse, and further can be categorized in three categories: beneficial, destructive and ambivalent. The beneficial discourses promote environment-friendly ideologies, destructive endorse environmentally unfriendly stances and ambivalent are the neutral ones are not clear.

As mentioned above, another dimension of the present study is to probe into the selected discourses through the lens of environmental sustainability. For this purpose, Hansmann, Mieg, and Frischknecht (2012) framework has been used, which looks into the ideological elevation in the discourse, and then accordingly categorizes it into various schemas. Hansmann et al. (2012) ponder the following schemas to be covered in their framework of environmental sustainability: defending the natural environment, decreasing the usage of non-renewable sources, using renewable sources sensibly, getting protection from climatic threats, and saving natural spaces and biodiversity. Considering their nature, it can be argued that all these schemas are pillars to attaining a sustainable environmental future.

United Nations has also considered environmental sustainability as a major objective to achieve its sustainable development goals (2015). Out of 17 goals, seven are directly or indirectly related to the environment: good health and well-being (SDG 3), water and sanitation (SDG 6), cities and communities (SDG 11), consumption and production of sources (SDG 12), climatic vicissitudes (SDG 13), oceans and marine life (SDG 14), and life on earth above the sea (SDG 15). According to a report by UN Environment Programme (2012), there are twenty-one major environmental challenges that the world is facing today and they range from food security to severe climatic extortions. All these issues pose a major threat to the core of sustainability. Thus, it is a need for time to focus the environmental sustainability at all levels from individual to national and global levels.

Griffin (2017) comments that in the present context businesses and corporations have become momentous with respect to the construction of social awareness regarding the environment as well as participating in environment-friendly activities. He further asserts that corporate discourses are thus significant to study the efficiency of organizations for contemporary ecological narrative (Griffin, 2017). In this regard, Nambiar and Chitty (2014) carried out an analysis of corporate discourses in India for the environment and sustainability. His findings discovered a lack of empathy about environmental values in the selected discourse (Nambiar & Chitty, 2014). Carrieri and Leite da Silva (2007) studied the corporate discourse of mobile companies in Brazil for environmental concerns and reported a lack of understanding in this regard. Almaghlouth (2022) recently carried out a corpus-based analysis of online discourse regarding the various green movements in the Kingdom. The results of the study convey the effective use of language to create an awareness of sustainability (Almaghlouth, 2022).

As stated above, the present research aims to examine the Saudi corporate discourse as displayed on the various organizational websites regarding sustainability concerns. There is no such study carried out in this regard in the selected context and the present research aims to fill the gap.

Research Method

- *Research design*

The research design of the present study is quantitative in nature as it relied on corpus-based and content-based techniques to collect and analyze data. A corpus-based analysis is a contemporary field in linguistics that helps researchers to analyze a huge volume of data. The word corpus means large samples of language in use (both in written and spoken formats). According to Baker (2006), corpus-based discourse analysis is beneficial for exploring linguistic and grammatical items from huge data collection thus more reliable to generalize results.

- *Sampling and data collection*

Since the present study examined environmental concerns in Saudi corporate web discourses, the data (for the corpus) was taken from major governmental organizations in Saudi Arabia related to the environment. The data corpus contained around 20,000 tokens which prepared a specialized corpus of the corporate discourses collected from the websites of the sampled organizations, particularly pages related to environmental policies and actions. These administrations were formed for the explicit purpose to support the Saudi government for a sustainable environment. The sampled organizations included the following:

1. National Platform Gov (Page: Environmental Protection in Saudi Arabia)
2. Ministry of Environment, Water, and Agriculture (Online document: National Environment strategy)
3. National Centre for Environmental Compliance (home page and related pages)
4. Aramco- Environmental, Social, and Governance (home page and related pages)

Besides, Aramco was also included in the sample of the study as it focused on the same agenda. It is one of the largest organizations in the Kingdom that shapes the economy while working on the oil-production schema. That is the reason, the Saudi government has in particular added the task of environmental enhancement to its to-do list. Thus, in total four organizations were selected for the collection of data (links provided in Appendix A).

These websites were selected based on their relevance to environmental goals and plans. The home pages of the websites were preferred but in case of no environment-related material on the home page, the connected pages or documents were selected to get enough data for the research. As mentioned above, the corpus built was specialized as it was built to explore topics related to the environment in the Saudi corporate context. The specialized corpus is the one built around a particular genre, register, time, context, type, the term(s), or topic (s) (Hunston, 2002). Such specialized corpus has no exact word limits (Sinclair, 2004) but it usually depends on the availability of the material, nature of the research, objectives of a study, etc.

- *Instrument and research procedure*

After the preparation of the corpus, the cleaning process was carried out. The .txt file format was used to analyze data using the SketchEngine software. Sketch Engine (Kilgarriff, Rychly, Smrz, & Tugwell, 2004) is a leading corpus query tool that has particular features to study words through collocations, concordances, and comprehensive word sketch features. Firstly, SketchEngine software was used to study key lexical choices in the specialized corpus. Gabrielatos (2018) defines keywords as main lexical items with higher frequencies than the others and is vital to determine the aboutness of a text corpus. In corpus linguistics, aboutness helps us to determine the main topics, attitudes, and concepts discussed in a text (Gabrielatos, 2018), in short, it assists to reach the overall ideological stance of the texts. For this purpose, the keywords option was used, further delimiting multi-word terms. These lists of words with higher frequency than others were used to determine the aboutness of the corpus texts or in other words the key themes.

- *Data analysis*

As identification of keyness was only the first step, the data was further examined through collocation of the keywords or themes. For this purpose, the LancBox 6.0 software was used. This software was first used to identify the collocates for the main lexical item of the study i.e, environment. This software presented collocates in both lists and a graphical format known as GraphColl (Brezina, McEnery, & Wattam, 2015). Collocation is generally defined as surrounding words. This graphical representation of collocates can help further to identify the ideological patterns that emerge from the texts. The same word 'environment' is further explored through the grammatical categories of nouns and verbs, using wordsketch feature provided by SketchEngine.

Finally, to identify the relevance of these words with the environmental sustainability factor, content analysis was done. The different items were categorized and listed under various themes of environmental sustainability (in line with the theoretical framework of Hansmann et al. (2012)).

Findings and Discussion

The specialized corpus built for the purpose contained around 18092 token terms and 3016 lemmas. The first major concern was to study the lexical choices. For this purpose, Sketch Engine software was used to identify keywords (multi-words). The software identified 1000 multi-word terms (5,590 items) used prominently throughout the selected corpus (see attached Appendix B for a sample). The list was further analyzed manually to recognize the key themes presented in the selected discourse. Table 1 below depicts the summary of the recurrent themes with frequency (f), average reduced frequency (ARF), and average logarithmic distance frequency (ALDF). These are the themes with a higher occurrence than the others. ARF and ALDF further assisted to narrow down the selection to the most prominent themes or concepts portrayed in the selected corpus. Overall, table 1 below provides a gist of what the corpus texts were about.

Table 1: Key themes in the selected Saudi Corporate Discourse (Source: SketchEngine processing)

Word	Frequency	ARF	ALDF
environmental compliance	18	5.02	3.68
terrestrial ecosystem	14	2.65	1.92
arabian gulf	13	3.37	2.20
asir magpie	11	2.59	1.90
environment sector	11	4.02	3.83
economic sector	14	4.10	2.71
saudi aramco	12	3.63	3.63
meteorology sector	9	2.79	2.29
coastal ecosystem	10	2.06	1.74
private sector participation	9	2.78	2.26
sector participation	9	2.78	2.26
chemical safety meteorology	8	1.63	1.52
environmental awareness	11	4.67	4.48
institutional setting	9	3.24	2.71
meteorological service	8	2.85	2.28
national environment strategy	7	2.70	2.40
combating desertification	7	1.31	1.27
environmental permit	8	2.79	2.31
economic requirement	7	2.63	2.29
biodiversity protection	7	2.20	1.89
air quality index	7	1.11	1.11
waste management	22	8.22	6.40
sector economic requirement	6	2.40	2.27
roadmap of the strategy	6	2.40	2.29
diagnostic of the current state	6	2.40	2.22
implementation roadmap of the strategy	6	2.40	2.29
proposed institutional framework	6	2.40	2.18
certificate in the field	6	1.05	1.07
air quality condition	6	1.06	1.08
implementation roadmap	6	2.40	2.29
arabian oryx	6	1.52	1.44
main pressure	6	1.31	1.33
quality condition	6	1.06	1.08
environmental commitment	6	3.08	3.05
protected area	18	8.25	8.62
quick win	6	2.40	2.29
vegetation cover	6	2.13	2.04
waste recycling	6	2.75	2.71
practices key	5	1.35	1.41
solution based on lessons	5	1.12	1.16
air quality index value	5	1.04	1.06
quality index value	5	1.04	1.06
municipal solid waste	6	1.40	1.40
air quality	26	6.31	4.96
national center	16	5.28	4.21
environmental rehabilitation	5	1.24	1.27
environmental inspection	5	1.51	1.43
artificial reef	6	1.30	1.26
climate challenge	5	2.69	3.07
institutional framework	6	2.40	2.18

The list of themes highlights the projecting areas of the discourse under scrutiny. The terms like *air quality*, *waste management*, *protected area*, *environmental compliance*, *national center*, *terrestrial ecosystem*, *environmental awareness*, *Arabian gulf*, *asir magpie*, *environment sector*, and “*economic sector*” are some of the projected expressions with the highest frequencies.

Some terms like *air quality*, *waste management*, *environmental compliance*, *terrestrial ecosystem*, etc. clarify the dimensions of the selected Saudi corporate discourses with respect to their environmental policies. In other words, they portray the initiatives taken by these corporate organizations to work for the environment. In addition, the phrases like “private sector participation”, *national environment strategy*, *Saudi Aramco*, *national center*, and *economic sector* illustrate the concept of mutual efforts from various governmental as well as non-governmental institutions needed to protect the environment. Moreover, the list also provides themes like *environmental awareness*, *environmental rehabilitation*, and *environmental commitment* which display the commitment of the corporations toward the agenda for sustainable green concerns.

Table 2: Wordsketch for “environment” for Saudi Corporate Discourse (Source: SketchEngine processing)

Modifiers for environment	Nouns modified by environment	Verbs with environment as object	Verbs with environment as subject
Agricultural agricultural environment	Sector of the environment sector	Protect in protecting the environment	Implement environment implement the initiatives aiming
Natural natural environment	Fund environment fund	Preserve to preserve the environment	Contain environment contains
Coastal coastal environment	Apparatus environmental protection apparatus	Affect sectors affecting the environment	Establish environment establish
Desert desert environment	Water the environment, water and agriculture	Carry environment was carried	Enhance environment enhance
Fresh fresh environment	Review environment impact assessment review	Degrade degraded environment	Develop environment develop
Aquatic aquatic environment	Entity environment sector entities	Maintain maintain a clean environment	Be environment was
Arid arid environment	Strategy environment strategy	Operate operating the environment	None
Inland inland environment	System environment system	Manage managing the environment	None
Overall Overall environment		Develop developing the environment	
Clean clean environment		None	None
Wild wild environment		None	None
KSA KSA environment		None	None
Terrestrial terrestrial environment		None	None
Sustainable sustainable environment		None	None
Water water environment		None	None

The results in the above table show prominence of the term used with a noun (both as modifiers and as modified terms). The term is used 60% with nouns and 40% with a verb. This indicates that the environment is a key slogan term in the selected corporate discourse. The noun terms also clarify how the variety of environments from aquatic to the desert, etc. are primarily paid attention to. However, the actions taken to upgrade the environment are less focused than the talk about the environment. Overall the identified verbs portray a comprehensive picture of activities (like *protect*, *preserve*, *maintain*, *manage*, etc.) planned to carry out the environmental plan in the selected corporate discourses. This lexical categorization of the keyword indicates how the environment is focused in the corporate discourse of the Kingdom.

This key themes list (provided in Appendix A) was further analyzed to identify the major environmental sustainability themes as per the selected theoretical approach (Hansmann et al., 2012). The results are presented in table 3 below.

Table 3: Environmental Sustainability Themes in Saudi Corporate Discourse (Source: Own processing)

Environmental Sustainability Themes	Examples from Corporate Discourse (obtained from SketchEngine)
1. Protection of the natural environment	Environmental compliance, environmental awareness, air quality index, waste management, pollution monitoring, environmental agreement, treated sewage, industrial emission, environmental rehabilitation, carbon economy, medical waste, water pollution, environmental education, environmental strategy, temperature level, green area, ozone layer, net-zero scope, environmental monitoring, carbon capture, emission reduction, following major air pollutant, hosted plantation
2. Responsible use of renewable resources	Sustainable energy future, waste recycling, energy initiative, use of natural resources, water conservation, recyclable material, renewable water, renewable energy, renewable energy source, circular carbon economy, Co2 footprint, diverse low-carbon, carpark solar panel system, energy optimization resources,
3. Reduction of use of non-renewable resources	hydrocarbon resource, non-renewable groundwater, water-efficient practice
4. Protection from environmental hazards, reduction of risks	Chemical safety meteorology, combating desertification, seasonal forecast, agricultural desertification, drought monitoring, key weather prediction, reduction of overgrazing, environmental permit for import, Coastal ecosystems, biodiversity protection, mountain ecosystem, important birds, reef structure, high biodiversity, species conservatism, desert environment, Arabian oryx, biological diversity, sea grass, migratory bird,
5. Protection of natural spaces and biodiversity	mammal species, marine invertebrate, land degradation, mangrove forest, soil pollution, coastal land, marine life, biological diversity, wildlife conservation, mangrove eco-park, wildlife sanctuary, unspoiled natural area, diversity of reptiles, limited quantity of oysters, promoting biodiversity, sand sea, fauna specie, biodiversity protection measure, critical habitat for birds, dhub lizard, idmi gazelle, corporate biodiversity protection areas

As per the findings, it is evident that the selected corpus embodies a varied variety of sustainability themes. From the protection of the natural environment to biodiversity, all aspects are catered to in the Saudi corporate discourse. In this regard, the natural environment protection and protection of natural spaces and biodiversity are more noticeable than the other categories. The majority of the lexical terms belonged to these themes (41.1% and 29.3% respectively).

In the first category i.e. protection of the natural environment, the majority of the lexical choices represent the determination of the corporations towards the need for environmental protection (for example, *environmental compliance*, *environmental strategy*, *environmental rehabilitation*, etc.). Moreover, the major targets are also identified as *waste management*, *pollution monitoring*, *net-zero scope*, *emission reduction*, etc. Whereas, the use of lexical choices in the group of protection of natural spaces and biodiversity primarily focuses on natural habitats and flora-fauna species. The terms like *reef structure*, *seagrass*, *mountain ecosystem*, *desert environment*, *coastal ecosystems*, *wildlife sanctuary*, etc. make it clear that the concerned corporations have set desired targets by identifying the areas. In addition, the terms like *marine invertebrates*, *mangrove eco-park*, *diversity of reptiles*, *marine life*, *Arabian oryx*, *the quantity of oysters*, *migratory bird*, *mammal species*, etc. embody the acute emphasis on the local plants and animals. The least focused category is the reduction of the use of non-renewable resources. Only two items are found in this category which depicts that corporations are less concerned about non-renewable sources.

The results illustrate that the fortification of the natural environment, biodiversity, and renewable sources is the primary emphasis of the selected corporations as per their lexical choices. Hameed et al. (2022) identified similar findings while analyzing the Saudi Green Initiative (SGI) according to sustainability concerns. However, the present findings differ in two major domains firstly, the protection of biodiversity and natural spaces are the least catered category in SGI whereas the present study reports the opposite; similarly, renewable sources are given too much priority in the SGI which is not substantial in the selected corporate discourse as per the findings of the present study. The results of this section as well as overall expose an environment-friendly discourse (Alexander & Stibbe, 2014) initiated for a healthier bio-network.

Griffin (2017) comments that corporations can play a central role in the climate change process. For this said purpose, corporate discourses are vital to the progression of social awareness along with practical implications for the majority of the public in contact with them. In this regard, the findings of the present study expose a positive pattern of environmental apprehensions and practices in the chosen corporate discourse from the Saudi context. Winarno (2017), in particular, has emphasized the role of Middle Eastern countries like Saudi Arabia (involved in oil production and supply) in more active participation to bring about environmental sustainability. The present study finds the significant involvement of some selected Saudi corporations in this regard which is a positive indicator.

Conclusion

Smith (2017) comments that “despite their pivotal role in both the creation of the problem of climate change and the implementation of potential solutions, the voices of business actors are largely neglected in discursive studies of climate politics” (pg. 21). Thus, it is crucial to study corporate discourses to assess their empathy of environmental issues besides to appraise their partaking in ecological elevation. Within the framework of social ecology, corporations are also considered responsible for taking an active part in the elimination of ecological problems (Gray et al., 1996). In this regard, the present study aimed to analyze the corporate discourse in the Saudi context. The purpose was to evaluate the web content of some environmental organizations set up with green agenda in the Kingdom. These organizations were created for the specific purpose to assist the Kingdom in the enhancement proposal of the environment and in particular to plan for a sustainable environment. The corpus was developed from the selected webpages materials and documents and was analyzed using the SketchEngine tool.

The findings of the research expose that the selected online discourse of the chosen organizations embeds a great concern for environmental issues and threats. In addition, they understand the value of environmental sustainability. Besides, they have enlisted various strategies and plans in their online discourse, that demonstrate their planning for the amelioration of nature and natural surroundings. The findings add to the fact that discourses can be used to promote eco-friendly ideology as well as sustainable approaches. These further assists to apprehend the role of corporations in the process of crafting a green future through their discourses.

Finally, the study concludes that language use in form of discourse has a pivotal standing in generating constructive discourses about the environment.

Acknowledgment

This study is supported by Deanship of Scientific Research at Prince Sattam bin Abdulaziz University, Saudi Arabia.

References

- Alexander, R., & Stibbe, A. (2014). From the analysis of ecological discourse to the ecological analysis of discourse. *Language sciences*, 41, 104-110. doi: <https://doi.org/10.1016/j.langsci.2013.08.011>
- Almaghlouth, S. (2022). Environmental sustainability in the online media discourses of Saudi Arabia: A corpus-based study of keyness, intertextuality, and interdiscursivity. *Plos one*, 17(11), e0277253. doi: <https://doi.org/10.1371/journal.pone.0277253>
- Alshuwaikhat, H. M., & Mohammed, I. (2017). Sustainability matters in national development visions—Evidence from Saudi Arabia’s Vision for 2030. *Sustainability*, 9(3), 408. doi: <https://doi.org/10.3390/su9030408>
- Baker, P. (2006). *Using Corpora in Discourse Analysis*. London: Continuum. Retrieved from <https://www.lancaster.ac.uk/staff/bakerjp/usingcorpora.htm>
- Boden, D. (1994). *The business of talk: Organizations in action*. Cambridge: Polity Press. Retrieved from <https://lib.ugent.be/catalog/rug01:000333564>
- Breeze, R. (2013). *Corporate Discourse*. London: Bloomsbury Academic. doi: <http://dx.doi.org/10.5040/9781472541901>
- Brezina, V., McEnery, T., & Wattam, S. (2015). Collocations in context: A new perspective on collocation networks. *International Journal of Corpus Linguistics*, 20(2), 139-173. doi: <https://doi.org/10.1075/ijcl.20.2.01bre>
- Carrieri, A. d. P., & Leite da Silva, A. R. (2007). Environmental discourses in organizations: the case of a Brazilian mobile telecommunications company. *BAR-Brazilian Administration Review*, 4, 1-15. doi: <https://doi.org/10.1590/S1807-76922007000300002>
- Castells, M. (2009). *Communication Power*. Oxford: Oxford University Press. Retrieved from <https://global.oup.com/academic/product/communication-power-9780199681938>
- de Paula, A. P. P., & Wood Jr, T. (2009). Pop-management: tales of passion, power and profit. *International Journal of Organization Theory & Behavior*, 12(4), 595-617. doi: <https://doi.org/10.1108/IJOTB-12-04-2009-B003>
- Fairclough, N. (1992). *Discourse and Social Change*. Cambridge: Polity Press. Retrieved from <https://worldcat.org/en/title/25371774>
- Fuoli, M., & Hart, C. (2018). Trust-building Strategies in Corporate Discourse. *Discourse and Society*, 29(5), 514-552. doi: <https://doi.org/10.1177/0957926518770264>
- Gabrielatos, C. (2018). Keyness analysis: Nature, metrics and techniques. In *Corpus approaches to discourse* (pp. 225-258). Routledge. Retrieved from <https://www.taylorfrancis.com/chapters/edit/10.4324/9781315179346-11>
- Gray, R., Owen, D., & Adams, C. (1996). *Accounting & accountability: changes and challenges in corporate social and environmental reporting*. Prentice hall. Retrieved from <https://eprints.gla.ac.uk/95486/>
- Griffin, P. (2017). *CDP Carbon Majors Report 2017*. Retrieved from <https://cdn.cdp.net/cdp-production/cms/reports/documents/000/002/327/original/Carbon-Majors-Report-2017.pdf>

- Grundmann, R., & Krishnamurthy, R. (2010). The discourse of climate change: A corpus-based approach. *Critical approaches to discourse analysis across disciplines*, 4(2), 125-146. Retrieved from <https://publications.aston.ac.uk/id/eprint/10425/>
- Hameed, A., Jabeen, I., & Afzal, N. (2021). Saudi Vision 2030 in Western Media: An investigation on the basis of corpus. *Asian EFL Journal*, 28(1.4), 78-100. Retrieved from <http://repository.psau.edu.sa/jspui/handle/123456789/1571310>
- Hameed, A., Jabeen, I., & Afzal, N. (2022). Towards an eco-friendly future: A corpus-based analysis of media discourse on "Saudi Green Initiative". *Lege Artis*, 7(1), 84-119. Retrieved from <https://www.researchgate.net/publication/361985351>
- Hansen, A. (2018). *Environment, media and communication* (2nd ed.). Routledge. doi: <https://doi.org/10.4324/9781315625317>
- Hansmann, R., Mieg, H. A., & Frischknecht, P. (2012). Principal sustainability components: empirical analysis of synergies between the three pillars of sustainability. *International Journal of Sustainable Development & World Ecology*, 19(5), 451-459. doi: <https://doi.org/10.1080/13504509.2012.696220>
- He, W., & Rong, W. (2018). The paradigm of discourse analyses and the theoretical foundation of ecological discourse analysis. *Dangdai Xiucixue*, 37(5), 63-73.
- Hossain, D. M. (2017). Discourse analysis: an emerging trend in corporate narrative research. *Middle East Journal of Business*, 12(4), 3-9. Retrieved from <https://platform.almanhal.com/Files/2/109351>
- Hunston, S. (2002). *Corpora in Applied Linguistics*. Cambridge: Cambridge University Press. Retrieved from <https://research.birmingham.ac.uk/en/publications/corpora-in-applied-linguistics>
- Jaworska, S. (2020). *Corporate discourse*. Cambridge University Press. doi: <https://doi.org/10.1017/9781108348195>
- Kamalu, I., & Osisanwo, A. (2015). Discourse analysis. In *Issues in the study of language and literature* (pp. 169-195). Ibadan: Kraft Books Limited. Retrieved from <https://www.researchgate.net/publication/343214812>
- Kennedy, R. (2021). 'Dangerous and delusional': Critics denounce Saudi climate plan. Retrieved from <https://www.aljazeera.com/news/2021/10/26/green-or-greenwashing-saudi-arabias-climate-change-pledges>
- Kilgarraff, A., Rychly, P., Smrz, P., & Tugwell, D. (2004). Itri-04-08 the sketch engine. *Information Technology*, 105(116), 105-116. Retrieved from <https://www.researchgate.net/publication/260387608>
- Koller, V. (2008). Identity, image, impression: Corporate self-promotion and public reactions. *Handbook of communication in the public sphere*, 155-180. doi: <https://doi.org/10.1515/9783110198980>
- Kotob, F. (2011). What Is Sustainability? *ResearchGate*. Retrieved from <https://www.researchgate.net/profile/Fadi-Kotob/publication/282184670>
- Liu, S., & Li, X. (2021). A Multimodal Critical Discourse Analysis of Corporate Apologies by Starbucks CEO from the Perspective of Crisis Management. *Scientific and Social Research*, 3(2), 114-123. doi: <https://doi.org/10.36922/ssr.v3i2.1115>
- Nambiar, P., & Chitty, N. (2014). Meaning making by managers: Corporate discourse on environment and sustainability in India. *Journal of business ethics*, 123(3), 493-511. doi: <https://doi.org/10.1007/s10551-013-1848-2>
- Pihlaja, S., & Musolff, A. (2017). Discourse and ideology. In *Pragmatics of Social Media* (pp. 381-404). Berlin, Boston: De Gruyter Mouton. doi: <https://doi.org/10.1515/9783110431070>
- Pollach, I. (2003). Communicating corporate ethics on the world wide web: a discourse analysis of selected company web sites. *Business & Society*, 42(2), 277-287. doi: <https://doi.org/10.1177/0007650303042002006>
- Ras, I. A. (2017). *A Corpus-Assisted Critical Discourse Analysis of the Reporting on Corporate Fraud by UK Newspapers 2004-2014*. (PhD thesis). University of Leeds. Retrieved from <https://etheses.whiterose.ac.uk/18356/>
- Raza, A., Rather, R. A., Iqbal, M. K., & Bhutta, U. S. (2020). An assessment of corporate social responsibility on customer company identification and loyalty in banking industry: a PLS-SEM analysis. *Management Research Review*, 43(11), 1337-1370. doi: <https://doi.org/10.1108/MRR-08-2019-0341>
- Seznec, J.-F., & Mosis, S. (2021). The Energy Transition in the Arab Gulf: From Vision to Reality. *Atlantic Council Policy Institute*. Retrieved from <https://www.atlanticcouncil.org/indepth-research-reports/report/the-energy-transition-in-the-arab-gulf-from-vision-to-reality>
- Sinclair, J. (2004). *Trust the Text: Language, corpus and discourse*. Routledge. doi: <https://doi.org/10.4324/9780203594070>
- Smith, O. (2017). *Winds of Change? An Analysis of Regional Variations in Corporate Discourse on Climate Change*. (Master's dissertation). Barcelona Institute of International Studies. Retrieved from https://www.ibei.org/ibei_studentpaper33_105351.pdf
- Taher, N., & Hajjar, B. (2014). Environmental concerns and policies in Saudi Arabia. In *Energy and Environment in Saudi Arabia: Concerns & Opportunities* (pp. 27-51). Springer. doi: https://doi.org/10.1007/978-3-319-02982-5_2
- Tenca, E. (2018). Remediating corporate communication through the web: The case of about us sections in companies' global websites. *ESP Today*, 6(1), 84-106. doi: <https://doi.org/10.18485/esptoday.2018.6.1.5>
- UN Environment Programme. (2012). 21 Issues for the 21st century: results of the UNEP foresight process on emerging environmental issues. Retrieved from <https://wedocs.unep.org/20.500.11822/8056>
- UN Environment Programme. (2015). Sustainable Development Goals. Retrieved from <https://www.unep.org/evaluation-office/our-evaluation-approach/sustainable-development-goals>
- UN Global Compact. (2016). The Ten Principles of the UN Global Compact. Retrieved from <https://www.unglobalcompact.org/what-is-gc/mission/principles>
- van Dijk, T. A. (1985). Introduction: Discourse Analysis in (Mass) Communication Research. In T. A. van Dijk (Ed.), *Discourse and Communication* (pp. 1-9). Berlin: Walter de Gruyter & Co. doi: <https://doi.org/10.1515/9783110852141.1>
- Winarno, B. (2017). The value of international regime and global environmental crises. *Jurnal Hubungan Internasional*, 6(1), 81-98. doi: <https://doi.org/10.18196/hi.61107>

Appendix A

Data taken from the following links:

- https://www.my.gov.sa/wps/portal/snp/aboutksa/environmentalProtection!/ut/p/z/0/04_Si9CPykyssy0xPLMnMz0vMAfjo8zivQIsTAwdDQz9LSw8XQ0CnT0s3JxDfA0M_A30g1Pz9AuvHRUBPXGvKQ!!/
- <https://www.aramco.com/en/investors/environmental-social-and-governance>
- <https://www.aramco.com/en/investors/environmental-social-and-governance/environment-and-climate-change>
- <https://ncec.gov.sa/>
- <https://www.mewa.gov.sa/en/Ministry/AboutMinistry/Pages/MinistryVision.aspx>

Appendix B

6/10/22, 1:07 PM

Keywords | Sketch Engine



(items: 5,590)

Word	Word
1 environmental compliance	251 site closure
2 terrestrial ecosystem	252 important bird
3 arabian gulf	253 mountain ecosystem
4 asir magpie	254 waste sector
5 environment sector	255 gas recovery
6 economic sector	256 reef structure
7 saudi aramco	257 end-use application
8 meteorology sector	258 sustainable energy future
9 coastal ecosystem	259 operating facility
10 private sector participation	260 lack of standards
11 sector participation	261 pollution monitoring
12 chemical safety meteorology	262 responsible entity
13 environmental awareness	263 seasonal forecast
14 institutional setting	264 quality of air
15 meteorological service	265 high biodiversity
16 national environment strategy	266 hydrocarbon resource
17 combating desertification	267 waste production
18 environmental permit	268 environmental agreement
19 economic requirement	269 treated sewage
20 biodiversity protection	270 repair program
21 air quality index	271 air pollutant
22 waste management	272 national coordination
23 roadmap of the strategy	273 industrial emission
24 implementation roadmap of the strategy	274 operational responsibility
25 sector economic requirement	275 efficient engine
26 diagnostic of the current state	276 rich biodiversity
27 proposed institutional framework	277 species conservation
28 certificate in the field	278 desert environment

6/10/22, 1:07 PM

Keywords | Sketch Engine

29	air quality condition	279	company operation
30	implementation roadmap	280	migratory specie
31	arabian oryx	281	competent authority
32	main pressure	282	limited water
33	quality condition	283	recovery facility
34	environmental commitment	284	reducing water
35	protected area	285	marine turtle
36	quick win	286	type of waste
37	vegetation cover	287	global average temperature
38	waste recycling	288	bird species
39	practices key	289	national regulation
40	solution based on lessons	290	energy initiative
41	air quality index value	291	sector entity
42	quality index value	292	migratory bird
43	municipal solid waste	293	sea grass
44	air quality	294	pre-industrial level
45	national center	295	weather phenomenon
46	environmental rehabilitation	296	natural reserve
47	environmental inspection	297	resource recovery
48	artificial reef	298	environmental matter
49	climate challenge	299	energy efficiency
50	institutional framework	300	demand for water
51	quality index	301	comprehensive policy
52	bird specie	302	environmental system
53	environmental challenge	303	energy intensity
54	proposed institutional setting	304	general authority
55	quick win initiative	305	use of natural resources
56	win initiative	306	wading bird
57	sand gazelle	307	captive breeding
58	environmental qualification	308	groundwater resource
59	environment fund	309	source of pollution
60	index value	310	engine technology
61	qualification certificate	311	used oil
62	environmental service	312	development sector
63	asbestos waste	313	mammal specie

https://app.sketchengine.eu/#keywords?corpname=user%2FAHameed%2Fsaudi_corporate_discourse&tab=basik&k_itemsPerPage=50&ktab=terms&n_itemsPerPage=50&ref_corpname=preloaded%2... 2/8

Appendix C

Collocates for “Environment”

▼ Span		5<>5		▼ Statistics		03 - MI	
environment							
Freq: 116 - Collocates: 36							
Index	Status	Position	Collocate	▼ Stat	Freq (coll.)	Freq (corpus)	
1	o	L	component_n	7.58507753...	11	9	
2	o	R	roadmap_n	7.07317849...	6	7	
3	o	L	propose_v	6.71060863...	8	12	
4	o	R	fund_n	6.71060841...	6	9	
5	o	R	requirement...	6.29557113...	6	12	
6	o	L	institutional...	6.29557107...	8	16	
7	o	R	implementa...	6.18009389...	6	13	
8	o	L	sustainabili...	6.07317861...	9	21	
9	o	L	state_n	6.03253672...	5	12	
10	o	R	meteorolog...	5.88053349...	12	32	
11	o	L	ministry_n	5.81014418...	10	28	
12	o	L	framework_n	5.71060858...	5	15	
13	o	R	sector_n	5.53003629...	30	102	
14	o	R	strategy_n	5.44142189...	13	47	
15	o	L	protect_v	5.42110195...	9	33	
16	o	L	national_n	5.32873790...	11	43	
17	o	R	economic_...	5.29557100...	7	28	
18	o	L	natural_adj	5.25604269...	9	37	
19	o	R	agriculture_n	5.00606441...	9	44	
20	o	L	the_other	4.42790175...	174	1270	
21	o	R	resource_n	4.42110191...	6	44	
22	o	R	its_pron	4.29557102...	6	48	
23	o	R	initiative_n	4.20810817...	6	51	
24	o	R	water_n	4.19403301...	12	103	
25	o	R	that_other	3.78099787...	7	80	
26	o	L	to_other	3.74537395...	42	492	
27	o	R	an_other	3.68676180...	5	61	
28	o	R	and_con	3.64633881...	75	941	
29	o	L	of_con	3.63023512...	64	812	
30	o	L	on_con	3.61107285...	7	90	
31	o	L	in_con	3.61000459...	30	386	
32	o	R	kingdom_n	3.50301312...	7	97	