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RESEARCH ARTICLE

Evaluating the Language of Sustainability: Ecological Linguistics and Environmental Commitments in Huawei and Apple's Business Reports

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ABSTRACT

Research Aim: This paper seeks to assess the language strategies adopted by Huawei and Apple in presenting and promoting their sustainability and environmental management in their CSR reports. This study uses a mixed-method research design. Quantitative analysis based on KWIC (Key Word in Context) with the help of AntConc software to find out and compare the frequency of sustainability terms in Huawei and Apple's CSR reports. While Ecological Discourse Analysis (EDA) is used for the qualitative analysis. This study focuses on the analysis of the firms' communication of ecological sustainability through CSR reports released between 2021 and 2024. The findings suggest that both Huawei and Apple focus on energy efficiency, carbon reduction, and supplier engagement in their CSR reports, while Apple concentrates on the quantifiable effects of sustainability whereas Huawei encapsulates the concept in terms of technology and society with a specific emphasis on digital accessibility. Despite the fact that both companies adhere to the key principles of ecological discourse, the themes particularly interaction and co-existence, and diversity and harmonyare depicted differently aligned with the business goals of the companies. The linguistic analysis of CSR reports, suggests that the corporate philosophies towards sustainability are reflected in the linguistic choices of both Huawei and Apple. A potential weakness of this study is the restricted size of the study population and the time frame in which the study was conducted.

INTRODUCTION

1.1. Research Background

The role of sustainability statements in CSR reports provides essential insights into how leading businesses such as Huawei and Apple position themselves on environmental concerns. These reports enable the organisations to report on their environmental management plans and strategies, and thus enshrine culture and sensitivity to stakeholders' needs. Recent studies focus on the language as a crucial factor of effective and sustainable communication, stating that language may greatly influence the audience perception and the company image (Hu, 2023). Hence, there is the need to identify various linguistic features that can be used in comparing the CSR reports of Huawei and Apple. According to the literature, firms employ narratives that are centred on the environment, creativity, and stakeholder engagement; elements that are critical to building a positive company image (Lu et al., 2022). Further, the use of concepts such as diversity and harmony in these accounts may reveal how these firms perceive themselves in the natural environment and the business environment. For example, the use of inclusive language may be perceived as the organization's attempt to address stakeholder management and sustainability (Sconfienza, 2019). Nevertheless, analyzing the language used in advertising Huawei and Apple products, one can describe the differences in business values and strategies. Huawei and Apple are different in their strategic planning for sustainability, with technology as the focus for Huawei, and design and customer

relations for Apple (Shi, 2023; Wang et al., 2024). It is important to consider these differences when identifying each company's strategy and role within the framework of the CSR and environmental responsibility. Hence, the analysis of CSR reports in the light of linguistics is beneficial for understanding the sustainability promises of Huawei and Apple but also for identifying general tendencies in environmental communication of corporations.

1.2. Research Aim and Questions

The aim of this research is to analyze how Huawei and Apple use language to communicate their sustainability efforts and environmental commitments in their CSR reports. In this background, research questions for this research are given below:

1. What specific linguistic patterns and structures related to ecology and sustainability are prevalent in the CSR reports of Huawei and Apple?
2. What are the key differences in linguistic patterns in the environmental narratives constructed by Huawei and Apple?
3. How do Huawei and Apple integrate concepts of diversity and harmony, as well as interaction and co-existence, within their sustainability narratives, and what does this reveal about their approach to ecological balance and corporate responsibility?

2. LITERATURE REVIEW

2.1. Introduction of CSR reports

The use of language is a key factor that helps to form the image of CSR reporting and report the organization's environmental responsibility to its stakeholders. According to Jones and Comfort (2018), narrative techniques used in CSR reporting often paint a clear picture of how corporations operate, meaning that many stories are spun to present a positive image than the actual picture of corporations' sustainability practices. This is in concurrence with Chung et al. (2018) who posited that the right CSR strategies can improve firm value through the promotion of trust and social capital among stakeholders. However, Almoaily (2019) addresses linguistic choices in a different context than the one pertaining to the present research question and, therefore, does not directly lend support to the assertion regarding the effects of sustainability language on public opinion. On the other hand, Hu (2023) says that companies should be more open and honest about the environmental information they give out because it affects how people think and act. Therefore, linguistic patterns reveal how companies like Huawei and Apple craft their environmental narratives to meet strategic objectives and stakeholders' expectations, which affects their image and market performance.

2.2. Previous Study of CSR Reports

The examination of CSR reports enables organizations to display their sustainability direction together with their approaches. According to Corciolani et al. (2020), stakeholders' company reputations, along with their perceptions, change based on the linguistic elements found within Corporate Social Responsibility reports. The research demonstrates that businesses work on identical sustainable topics but employ contrasting narratives that reveal their distinct business personalities and organizational interests. The study employed linguistic analysis to check sustainability and ecology discourses but additional research would have identified unique discourse-related linguistic elements inside the sustainable practices of technology giants like Huawei and Apple. Malyuga (2023) emphasizes the role of linguistic elements in CSR reports to demonstrate the methods through which businesses express their environmental duties. The study method is suitable for comparing sector-specific corporate statements because it helps identify how sustainability reports convey diversity and harmony as well as interaction and coexistence concepts. The framework developed by Malyuga (2023) proves useful for understanding CSR language but fails to encompass each impact that linguistic choice has on corporate responsibility and environmental equilibrium. This study requires further expansion to determine the connection between sustainability strategies and linguistic constructs used in CSR reports from Huawei and Apple.

2.3. Previous Study on Critical Discourse Analysis

Language analysis based on Critical Discourse Analysis (CDA) approaches helps explain how corporate messages take shape within CSR documents. According to Gai et al. (2024), the evaluation of transitivity processes within CSR reports demonstrates corporate decisions that shape stakeholder message communication in specific cultural domains. Language impact assessment stands essential for understanding stakeholder perception of corporate accountability according to this view. The main limitation of Gai et al.'s (2024) analysis consisted of studying transitivity alone without taking into consideration alternative discourse methods that shape environmental messaging particularly in technology sectors such as Apple and Huawei. Paliwoda-Matiolańska et al. (2020) support an update of standard quantitative reporting paradigms to relational and communicative models within CSR reporting practices. The study demonstrates that stakeholder management and corporate responsibility development strongly depend on social media discussions. This method does provide important findings but it fails to examine environmental narrative linguistic features which dominate CSR reports. Formal report communications lose their importance when social media remains the primary focus because they lack the capability to define corporate responsibility and identity establishment. Therefore, it is necessary to fill the gap in the literature on how companies like Huawei and Apple communicate their sustainable commitment through linguistic choices in CSR reports, especially in the under-researched aspects such as the themes of diversity, harmony, interaction and co-existence.

2.4. Theoretical Framework

He Wei has coined the term Ecological Discourse Analysis (EDA), which is a useful approach to understanding how language constructs and represents ecological and environmental worldviews (Cheng, 2022). EDA is based on the principle that discourse is not only a tool for conveying information but also a tool for forming and developing cultural, social, and environmental links. The core ideas of EDA, which are diversity and harmony, interaction and co-construction, underline the mutual connections between human society and the natural environment (Cheng, 2022). Diversity means the recognition of the ecosystem and the nature of ecological problems, while harmony emphasises the idea of the proper approach to the environment and its interaction with human beings. The process discussed above shows that Interaction as well as co-existence is possible and meaningful to distinguish between human societies and the environment. All these concepts fit into a framework that defines sustainability as a core concept of business ethics and corporate and social responsibility (Song et al., 2025). Thus, the task of representation can be used to prove organisations' concern with the balance of the environment by portraying it as a reciprocally connected and interconnected process.

In this study EDA can indeed provide benefits because it indicates the ways that Huawei and Apple present their sustainability programs concerning the condition of ecological equilibrium and corporate conscience. The focus on the aspects of diversity, harmony, interaction and co-existence outlines a theoretical framework according to which it is possible to consider how these companies have adopted environmentalism in their reports. Therefore, it can reveal how both firms describe such goals as their business strategies and as the company's obligations and ethical principles of its operations. This approach is important in finding out how language is used to influence and improve sustainability within the business fraternity.

3. METHODOLOGY

3.1. Research Design

The method applied to this research involves a mix of quantitative and qualitative research to determine the use of the language of sustainability in the CSR reports of Huawei and Apple. Mixed methodology is useful in this study because it allows the study to compare both the language and topics in communication for sustainability (Dawadi et al., 2021). In order to achieve the above-stated objective, the quantitative analysis has adopted the KWIC (Key Word in Context) analysis of sustainability terms using AntConc to analyse the frequency and distribution of such terms in the context of CSR reports. This gives a quantitative measure of how often certain terms and concepts linked to sustainability will appear, making it possible to establish how often specific environmental words and phrases will occur. On the other hand, the qualitative analysis used the Ecological Discourse Analysis (EDA) by He Wei, which is an attempt to establish the patterns from the language

used by those companies. The two broad themes, namely Diversity and Harmony and Interaction and Co-existence, derived from EDA, have been employed for the thematic analysis with a view to understanding how these companies practice sustainability in their business operations. Applying both qualitative and quantitative methods is especially beneficial when analysing the ecological and ethical implications of corporate communication since it enables the analysis of specific language use and, at the same time, it is possible to focus on the themes explored. Therefore, in adopting both quantitative and qualitative research, this work captures the whole picture of how sustainability is disclosed in corporations.

3.2. Document Source

For this study, the material being analysed as a corpus are the CSR reports of Huawei and Apple for the years 2021 to 2024. Among these CSR reports, 4 of them were selected from Huawei, and 4 of them were retrieved from Apple (Huawei, n.d.; Apple, 2021, 2022, 2023, and 2024). The information emerging from these reports was extracted from the corporate websites of the two companies under consideration. The chosen reports are the latest and most relevant CSR communications that offer an understanding of the sustainability policies and goals of the companies in light of modern corporate responsibility. Huawei and Apple were selected because the two companies are among the leading firms in the tech market worldwide. Both companies are technology giants and innovators, and they have been leaders in the corporate social responsibility paradigm, which makes their CSR reports to be typical of the industry. The reports analysed in this paper cover four years, providing a dynamic view of the development of corporate practices regarding sustainability, ethics, and ecological responsibility. Thus, this study intends to examine how the two companies, one Chinese (Huawei) and the other American (Apple), communicate their sustainability stories within a global corporate context.

3.3. Data Analysis

To analyze the data for this study both quantitative and qualitative methods were used to analyze the language of sustainability in the CSR reports of Huawei and Apple. For the purpose of quantitative analysis, AntConc software (version 4.3.1) was used to select 30 words most related to ecology and sustainability in the CSR reports of each company. AntConc is a freeware corpus analysis toolkit for concordance and text analysis, which is very efficient for corpus linguistics (Muchnik-Rozanov & Tsybulsky, 2022). This software allows users to perform very precise analysis of word frequency, concordances, and keyword context and is a great tool for studying large text databases in order to identify trends and patterns in language usage, as was done in this study in relation to CSR reports. This made it possible to determine the frequency rates of the sustainability themes by analysing the vocabularies of the two organizations. Therefore, further development of these apparent terms and comparison of their usage in the reports were conducted by means of KWIC analysis. This also entailed a word choice study of the discursive strategies deployed by Huawei and Apple in creating meaning regarding particular words associated with sustainability.

The qualitative part of the analysis aimed at a thematic approach according to the method called Ecological Discourse Analysis (EDA) developed by He Wei focusing on two major themes: Diversity and Harmony and Interaction and Co-existence. This work assessed the manner in which the above concepts are incorporated into the sustainability report of each firm and, therefore, provided an appreciation of the environmental management efforts of the organizations. Thus, the chosen approach of the quantitative content analysis of the word frequency and the qualitative analysis of the themes provided a profound understanding of the nature of the corporate ecological discourse and its implications for corporate responsibility in the two tech firms.

4. FINDINGS

4.1.Analysis of Sustainability Terminology in Apple and Huawei's CSR Reports Using Frequency Analysis

In this study, the use of AntConc software to determine the repeatability of sustainability related terms in the CSR Apple and Huawei for the last four years is used. The evaluation is thus geared towards determining the language adopted in the reporting process to describe the sustainability plans and responsible leadership. According to detailed results, many common and frequently used

words such as conjunctions, quantifiers, and other general words are excluded here. Also, the words similar to the terms are also sorted in a way to minimize the infleunces of lexical difference on the results. The two corpora are also fairly dissimilar in terms of size: The Apple corpus contains 169,847 tokens, while the Huawei corpus contains only 93,650 tokens. Because of size differences and potential differences in types of students that exist in the two sizes, several corrections have been made to the analysis. The analysis is made upon the 30 most relevant terms related to sustainability and it provides a point of comparison of the priorities and areas of interest of each company with regards to their communication of CSR activities.

Table 4.1: The frequency of words of Huawei CSR Reports

Sl. No.	Lemma	Frequency
1	health	555
2	products	360
3	protection	344
4	environmental	338
5	sustainability	298
6	information	297
7	development	281
8	carbon	271
9	harmonyos	258
10	suppliers	258
11	devices	252
12	app	228
13	device	227
14	responsibility	213
15	emissions	203
16	consumer	201
17	business	194
18	technology	193
19	energy	189
20	industry	174
21	corporate	173
22	including	168
23	report	168
24	smart	166
25	sustainable	164
26	packaging	161
27	friendly	145
28	high	148
29	world	147
30	digital	142

Table 4.2: The frequency of words of Apple CSR Reports

Sl. No.	Lemma	Frequency
1	energy	1086
2	suppliers	889
3	environmental	800
4	products	749
5	carbon	693
6	emissions	687
7	renewable	674
8	materials	601
9	chain	559
10	recycled	541
11	water	524
12	waste	417
13	resources	383
14	climate	342
15	engagement	319
16	footprint	308
17	communities	312
18	clean	287
19	health	286
20	packaging	284
21	impact	273
22	material	273
23	safety	272
24	sustainability	204
25	management	206
26	recycling	198
27	zero	186
28	green	134
29	ecology	105
30	standards	370

The analysis of the CSR reports showed that both companies pay significant attention to sustainability in their CSR language, although they have different priorities. Several terms that are commonly used in Apple's reports include 'energy,' 'environmental,' and 'carbon,' which show that the company is keen on energy conservation and the reduction of the carbon footprint. The frequency

of the term 'suppliers' is also high, which shows that Apple pays much attention to supply chain management as part of its sustainability initiatives. On the other hand, terms such as 'health,' 'protection,' and 'environmental' are used more often in Huawei's reports, implying a more comprehensive approach to sustainability that includes the health and safety of consumers, environmental protection and product responsibility. This analysis shows how the frequency of particular words can be used to gain an understanding of corporate focus and direction with regard to sustainability. When compared, it can be seen that Apple gives much consideration to energy and supply chain management, while Huawei seems to concentrate on product and technology-based sustainability strategies. Nevertheless, both companies show high sensitivity to environmental protection and sustainable business management in the language of their CSR reports.

4.2. Comparative Frequency Analysis of Sustainability Terms in Huawei and Apple CSR Reports

From the comparative analysis of the CSR reports of Huawei and Apple, a close look at the two corpora shows nine frequent terms, which are indicative of the CSR themes and concerns that the two companies have in common. This analysis not only shows the specific regions where both companies are involved but also reveals the level of their involvement by the frequency of these terms. The chosen terms are very relevant to sustainability and thus include 'energy,' 'environmental,' and 'carbon' through which it is possible to assess how each of the two companies is responding to environmental issues. The following table shows the list of terms with their frequencies of occurrences from the CSR reports of Huawei and Apple in order to illustrate their concern on each aspect of sustainability (Table 4.3).

Table 4.3: Common Words and Their Frequency Between Huawei and Apple CSR Reports

Sl. No.	Lemma	Huawei Frequency	Apple Frequency
1	energy	189	1086
2	products	360	749
3	environmental	338	800
4	carbon	271	693
5	emissions	203	687
6	suppliers	258	889
7	packaging	161	284
8	sustainability	298	204
9	health	555	286

4.2.1. Analysis of Linguistic Patterns in 'Energy' Entries in Apple and Huawei's CSR Reports

The concept of "Energy" appears frequently in both Apple and Huawei's CSR reports as they focus on energy management and renewable energy. Both companies also spend considerable time articulating their approaches to energy conservation and the improvement of energy efficiency in their own operations and in their value chains. The following are the KWIC entries of the term "Energy" in both companies' CSR Reports (Table 4.4 and Table 4.5)

Table 4.4: Selected KWIC Entries of 'Energy' in Apple's CSR Reports

Left Context	Hit	Right Context
Inc. (Apple) to conduct an independent assurance of its Supplier	Energy	Efficiency Programdata. This assurance statement applies to the
and colleagues along to put them in action. In 2022, our	energy	efficiency program avoided69.4 million kilowatt-hours of electricity, which
reducing their carbon footprint. Energy Efficiency The goal of our	Energy	Efficiency programisto help suppliers find ways to
we launched the Supplier Clean Energy Program and the Supplier	Energy	Efficiency Programtoadvance clean energy through our manufacturing
in 2020. In FY2021, more than 100 supplier facilities participated in our	energy	efficiency program, activelytracking and reporting on more than 2,000
projects. As green financing mechanisms remain integral to the Supplier	Energy	Efficiency Program, we'reexploring new approaches that connect

carbon neutral by 2030 across our entire product footprint. Our Supplier	Energy	Efficiency Program and Supplier Clean Energy Program both address
exploring new approaches that connect suppliers to external funding for	energy	efficiency projects while scaling the program and accelerating reductions.
of Energy Federal Energy Conservation Standards for Battery Chargers. The	energy	efficiency values are based on the following conditions: • Power
carbon footprint (Fraunhofer Institute) Supplier Clean Energy Program (Apex) Supplier	Energy	Efficiency Program (Apex)Packaging fiber and plastic footprint (Fraunhofer

Table 4.5: Selected KWIC Entries of 'Energy' in Huawei's CSR Reports

Left Context	Hit	Right Context
Acquired ISO 50001 (energy management system) certification, which recognizes their systematic	energy	Saving and emission reduction management capabilities. Overall, this makes
Helping suppliers identify	energy	Saving opportunities and improve energy efficiency. For most factories
Improved the energy efficiency of its product manufacturing processes through	energy	Saving means technically and managerially. Moreover, we require our
Paper, protecting forests in the process. Lighter packaging also minimizes	energy	Consumption and carbon emissions during transportation. We strive to
Battery replacement and memory upgrades. Huawei is committed to reducing	energy	Consumption and carbon emissions during production and operations. We
Safe for people to use, as well as consuming less	energy	And other resources, achieving industry-leading environmental protection throughout
By utilizing eco-friendly and energy-saving options, and enhance	energy	Efficiency and consumer experience in the stores through digital
Operations process. It has improved the	energy	Efficiency of its product manufacturing processes through energy saving
Long-term technological innovation, Huawei continuously improves the resource and	energy	Efficiency of products and provides environmentally friendly products and
Friendly materials, prefabricated exterior facade Store operations and consumer experience	energy	Efficiency and environmental protection Technology: Intelligent lighting control system

From the tables, it is seen that both Apple and Huawei have “Energy” in terms of efficiency and sustainability as one of their values. The reports from Apple concentrate on the Energy Efficiency Program and the Supplier Clean Energy Program because of Apple’s plan to minimize energy usage and encourage the use of clean energy in its supply chain. The focus is on realizing major energy savings and encouraging the use of cleaner energy technologies. On the other hand, Huawei’s dialogue in regard to “Energy” mainly revolves around the saving of energy in the organization and its products. Some of the specific areas it focuses on include the attainment of ISO 50001 certification for energy management as well as the promotion of energy efficiency in the supply chain and products and services. Huawei’s approach shows a holistic model that incorporates energy efficiency improvements in most business aspects including the manufacturing process and store operations. Both organizations show high levels of energy management practices, with Apple engaging their

suppliers and clean energy initiatives, and Huawei concentrating on internal energy use and the adoption of energy management technologies in their operations.

4.2.2.Analysis of Linguistic Patterns in 'Products' Entries in Apple and Huawei's CSR Reports

The most frequent keyword in the CSR reports of both companies is “Products”, which indicates their focus on the creation of sustainable products and the advancements in production technologies. The two companies demonstrate their attempts to make sustainability a central part of their product ranges by addressing material, accessibility, and environmental concerns. The following tables the KWIC entries found for the word “Products” in the CSR reports of both companies (Table 4.6 and Table 4.7).

Table 4.6: Selected KWIC Entries of 'Products' in Apple's CSR Reports

Left Context	Hit	Right Context
in the design, research, manufacture, distribution, and use of our	products	and services andthe global communities where we operate.
in the design, research, manufacture, distribution, and use of our	products	and services inglobal communities where we operate. We
experience Apple products and services with refurbished devices. Making more	products	and services availableto more people is good for
is to use only recycled and renewable materials in our	products	and packaging, andto use these materials more efficiently.
Goal Goal Use only recycled and renewable materials in our	products	and packaging, andenhance material recovery. Eliminate plastics in
corporate emissions. Use only recycled and renewable materials in our	products	and packaging, andenhance material recovery. Since 2015, we’ve
efficiency, the use of recycled and renewable materials in our	products	and packaging, andenhanced material recovery Increasing energy efficiency
and efficiency We source recycled and renewable materials for our	products	and packaging, and we use these materials more efficiently.
and efficiency: Responsibly sourcing recycled and renewable materials for our	products	and packaging, usingthese materials more efficiently, and considering
efforts support our goals of improving the safety of our	products	and the broaderelectronicsindustry and beyond. Creating an

Table 4.7: Selected KWIC Entries of 'Products' in Huawei's CSR Reports

Left Context	Hit	Right Context
problems and generate social value. Huawei is dedicated to creating	products	and services thataddress social issues. Through technological innovation,
solving Huawei has incorporated environmental protection into its requirements for	products	and managed itduring product development and mass production.
reducing the carbon footprint generated during operations and by our	products	; and communicating energy conservation and emission reduction requirements to

Corporate Responsibility Appendix Collaborating with users to improve information accessibility	products	and features Huawei values feedback from hearing- and visually-
of materials is possible. This approach results in eco-friendly	products	, and also drivesthe development of the renewable materials
to maximize their value, reduce the number of discarded electronic	products	, and promote sustainabledevelopment. Huawei devices installed with HarmonyOS
so, it aims to both extend the life of its	products	and protect theEarth's resources. Trade-in and
Building accessibility standards together Huawei values the accessibility of its	products	and calls for social-wideawareness and the engagement
protection feature. Huawei constantly improves the packaging design for its	products	and reduces andgradually eliminates disposable plastics from its
partners to make 'accessibility' an inherent mark of Huawei's	products	and realize thevision of 'digital inclusion'. We will

From the above tables, it can be seen that both the organizations have given emphasis on sustainability and social responsibility in their product planning. Apple often discusses the recycled and renewable materials in its products to promote the company's environmental responsibility and efficient use of resources. This concentration is part of a wider approach to minimize the environmental footprint of its products by designing them in the most sustainable way and sourcing the materials that are used in the production of these items, in a bid to achieve a cradle to cradle model of production and consumption. On the other hand, Huawei has given much attention to the environmental and social responsibilities as part of its products. The company also claims that it aims at designing goods that are sustainable and that have a positive impact on social Challenges including digital inclusion and accessibility. Huawei has adopted a series of environmental standards during the entire development of the product and pays special attention to the carbon footprint of its products. Each of these firms has adopted sustainability strategies with Apple being more keen on material innovation and lifecycle management while Huawei is keen on social responsibility and green standards in products and their use. These efforts show that each company has adopted a business model of integrating the development of products with other environmental and social objectives hence contributing to sustainable business practices.

4.2.3.Analysis of Linguistic Patterns in 'Environmental' Entries in Apple and Huawei's CSR Reports

The term "Environmental" is another keyword that has been used both in Apple and Huawei's CSR reports to show the company's concern in environmnentalism. Each of the two companies focuses on some aspects of environmental management, such as resource efficiency, product lifecycle, and environmental management in the supply chain. From the analysis of the two companies' CSR reports, the following are the KWIC entries on the keyword "Environmental" (Table 4.8 and 4.9).

Table 4.8: Selected KWIC Entries of 'Environmental' in Apple's CSR Reports

Left Context	Hit	Right Context
Iinitiatives Apple 2030 Resources Smarter Chemistry Engagement and Advocacy Data Appendix 2024	Environmental	Progress Report Approach Apple 2030 We have an ambitious commitment

the year 2023 Contents Introduction Environmental Initiatives Engagement and Advocacy Data Appendix 2024	Environmental	Progress Report Contents Introduction Reflections from Lisa Jackson Report
Initiatives Apple 2030 Resources Smarter Chemistry Engagement and Advocacy Data Appendix 2024	Environmental	Progress Report Design and Materials We’re designing our
iteration across several generations of the Apple Watch product line. 2024	Environmental	Progress Report DESIGNING PRODUCTS FOR DURABILITY iPhone 7, which was
Initiatives Apple 2030 Resources Smarter Chemistry Engagement and Advocacy Data Appendix 2024	Environmental	Progress Report Environmental Initiatives Apple 2030 Apple 2030 is our commitment
billion gallons of volumetric water benefits over the next 20 years. 2024	Environmental	Progress Report Flood plain Restoration in Northern California: Collaborated with
these supplier programs, see the Environment section (p7) and the 2021	Environmental	Progress Report. Introduction Environment Our People Customers Suppliers Communities
Environmental Initiatives Apple 2030 Resources Smarter Chemistry	Environmental	Progress canand should be good for business. We
Initiatives Apple 2030 Resources Smarter Chemistry Engagement and Advocacy Data Appendix 2024	Environmental	Progress Report Journey to Apple 2030 Where we’ve been 2023
about our hazardous waste and chemical safety procedures in our 2021	Environmental	Progress Report. Introduction Environment Our People Customers Emergency preparedness

Table 4.9: Selected KWIC Entries of 'Environmental' in Huawei's CSR Reports

Left Context	Hit	Right Context
Risk assessment Only cooperating with QC 080000 Reviewing new suppliers' Signing	environmental	Protection Annually assessing certified enterprises environmental protection systems agreements
batteries used for a long battery life New system Warranty	environmental	Protection Harmony OS, bringing new seamless AI life experiences One-
imagination, and so much more. Children's paintings themed around	environmental	Protection Huawei Summer Camp to the Hongshan Forest Zoo:
Conducting annual reviews Providing training for suppliers Leveraging performance of	environmental	Protection Organizing environmental management to push suppliers to performance
exterior facade Store operations and consumer experience Energy efficiency and	environmental	Protection Technology: Intelligent lighting control system and PV Thermal
suppliers select materials Having R&D personnel review Conducting environmental	environmental	Protection that are eco-friendly, and suppliers' MCD protection

Quality Certification Center (CQC), which is the center's highest	environmental	Protection rating for electronic and electrical products. This certificate
green, health, and safety field. SGS green product certificate CQC	environmental	Protection rating certificate Huawei products, including Enjoy 70S and
leading level in the green, health, and safety field. CQC	environmental	Protection rating certificate 39 models of 21 Huawei phones and tablets,
industry-leading level in the green, health, and safety field.	Environmental	Protection rating certificate for electronic and electrical products 66 models

As seen from the above tables, both Apple and Huawei have embraced the word Environmental to show their focus towards environmental responsibility, especially in product development, production and even in the supply chain. In its CSR reports, Apple usually associates "Environmental" with strategic plans such as Apple 2030 and efforts toward water management, chemical safety, and resource efficiency. The phrase 'Environmental Initiatives' is mentioned in the report time and again, in line with Apple's overall strategic positioning as a green company that aims to reduce its carbon footprint, as well as that of its products. Huawei on the other hand, has adopted the use of the word Environmental in the aspect of protection and conservation within its business operations. It is often used in connection with efforts to improve its environmental management in the supply chain, for example, research and development of green materials and energy-saving activities. Huawei also focuses on its partnership with suppliers on environmental management and focus on its environmental certifications for products to show that environmental protection is an essential part of the company. Both of the companies emphasise environmental responsibility, where Apple has set long-term sustainability objectives, and Huawei is committed to maintaining environmental protection in its operations and supply chain.

4.2.4. Analysis of Linguistic Patterns in 'Carbon' Entries in Apple and Huawei's CSR Reports

The term Carbon is also often used in both the Apple and Huawei CSR reports to describe their approaches to the reduction of carbon footprint in terms of product design, materials and energy. Each of the two companies discusses numerous strategies that have been taken to ensure that they reduce the carbon footprint within their operations and products. The following are the KWIC for the term "Carbon" in both companies CSR reports (Table 4.10 and 4.11).

Table 4.10: Selected KWIC Entries of 'Carbon' in Apple's CSR Reports

Left Context	Hit	Right Context
the thermal module. Because recycled aluminum can have 1/40th the	carbon	Footprint of aluminum from primary sources, this supports our
carbon footprint Materials selection is another way to reduce the	carbon	Footprint of our products. Our strategy is to transition
up from 67 percent in 2022. Because recycled aluminum can have 1/40 the	carbon	Footprint of aluminum from primary sources, this supports our
by 2030 Reducing energy use begins with measuring and understanding the	carbon	Footprint of a business. Since 2019, as part of Apple'
to lower our product carbon footprint We're reducing the	carbon	Footprint of our products through the materials we select.
more granularity possible for grid emission factors used in the	carbon	Footprint of the product use phase. The net result

more granularity possible for grid emission factors used in the	carbon	Footprint of the product use phase. The net result
reviewed by Fraunhofer IZM since 2007 with a view to Comprehensive	Carbon	Footprint Letter of Assurance Client: Apple Inc. Based on
tons carbon dioxide equivalents 1 Summary The total scope 3 product related	carbon	footprint is reported to be 37.84 million metric tons CO_2
to low-carbon sustainable aviation fuels (SAF) to reduce the	carbon	Footprint of air shipment. We're also addressing transportation-

Table 4.11: Selected KWIC Entries of 'Carbon Emissions Reduction' in Huawei's CSR Reports

Left Context	Hit	Right Context
Technically and managerially. Moreover, we require our suppliers to set	carbon	Emissions reduction targets and implement them in a bid
emissions reduction expectations for suppliers, who are advised to set	carbon	Emissions reduction targets in accordance with the Science Based
of carbon emissions reduction, and urge suppliers who fail the	carbon	Emissions reduction targets to ramp up their efforts. The
and leveraging innovative information and communications technology (ICT) to promote	carbon	Emissions reduction in diverse industries. Promoting renewable energy: Applying
End green supply chain. Leveraging innovative ICT technologies to promote	carbon	Emissions reduction in diverse industries. Promoting renewable energy: Applying
On-year increase of 84.2%. Huawei's product transportation processes reduce	carbon	emissionsbymore than 3,150 metric tons annually. 450 metric tons 36,000
s green transportation solution, boasting new energy vehicles, can reduce	carbon	emissionsbymore than 450 metric tons every year. It
Sustainable development. It joins industry chain partners' efforts to reduce	carbon	emissionsbycollecting statistics on carbon emissions and reporting
reducing resource strain 53 73 Customer obsession 77 Responsible supply chain 83 Community 88 Appendix 6 63	Carbon	emissions reductionthrough green warehousing and transportation Recycling and
identify carbon emissions across fields and set scientific and reasonable	carbon	Emissions reduction goals. Huawei inspects greenhouse gases in accordance

As shown in the tables above, both Apple and Huawei employ the term "carbon" in their reports to emphasize the efforts being made towards the reduction of carbon footprint, especially in the design and management of products. The term carbon footprint is most often associated with material and energy consumption, although it also applies to Apple's use of recycled aluminium and low-carbon processes in manufacturing. The terms "carbon" is used repeatedly to underline Apple's commitment to reducing environmental footprint at all stages of the product life cycle, including design and transportation. In contrast, Huawei's reports focus more on the carbon footprint of its supply chain, including how suppliers are encouraged to cut carbon with cleaner energy and sustainable practices. Huawei also discusses the carbon footprint in the context of transportation and logistics, where the focus is made on the significance of its green offerings, including electric cars and green warehouses. Thus, Apple and Huawei promote themselves as companies that actively work to minimize carbon

footprint, but Apple has its focus on product carbon footprint, while Huawei concentrates on supply chain and transportation.

4.2.5. Analysis of Linguistic Patterns in 'Emissions' Entries in Apple and Huawei's CSR Reports

The terms “Emissions” are also the most used in the CSR reports of both Apple and Huawei to show their efforts in decreasing their impact on the environment. Carbon emissions are another area of interest in both firms and they aim at putting in place measures of reducing carbon footprint at different levels. The following are the KWIC entries based on “Emissions” in both company CSR reports (Table 4.12 and 4.13).

Table 4.12: Selected KWIC Entries of 'Emissions' in Apple's CSR Reports

Left Context	Hit	Right Context
by the company; scope 2 emissions as the indirect greenhouse gas	emissions	From the generation of purchased electricity, steam, heat, and
venture to commercialize patented technology that eliminates direct greenhouse gas	emissions	From the traditional smelting process. Since our collaboration began
neutral for our corporate operations, including direct emissions (scope 1); indirect	emissions	From purchased electricity, steam, heat, or cooling (scope 2); and
Increasing the energy efficiency of our products helps drive down	emissions	From product use, and we’re taking steps to
focus on three areas: exploring innovative solutions to minimize carbon	emissions	From product use, including energy efficiency (see page 14); building
Beginning in fiscal year 2020, we updated our methodology for calculating	emissions	From employee commute to reflect employees working from home
Accounts for 59 percent of our gross carbon footprint. This includes	emissions	From fuel combustion; heating, ventilation, and air conditioning (HVAC);
Of those emissions. For example, we’ll look to reduce	emissions	From electricity by using renewable or low-carbon electricity
aims to commercialize patented technology that eliminates direct greenhouse gas	emissions	From the traditional smelting process. Apple joined with the
energy in fiscal year 2020, avoiding 8.6 million metric tons of carbon	emissions	In our supply chain. Suppliers Communities Our Business Appendix

Table 4.13: Selected KWIC Entries of 'Emissions Reduction' in Huawei's CSR Reports

Left Context	**Hit**	**Right Context**
Governments, industry organizations, and customers. 2. Develop and implement ambitious carbon	emissions	Reduction targets and corresponding actions. 3. Increase our use
Manufacturing process. Moreover, we require our suppliers to set carbon	emissions	reductiontargetsand implement them in a bid to
and managerially. Moreover, we require our suppliers to set carbon	emissions	reductiontargetsand implement them in a bid to
at least five years. It is recommended that challenging carbon	emissions	reductiontargetsbe set in accordance with the SBTi
reduction expectations for suppliers, who are advised to set carbon	emissions	Reduction targets in accordance with the Science Based Targets
its supply chain. As an active response to the carbon	emissions	reduction targets proposed in the 14th Five-Year Plan

carbon emissions reduction, and urge suppliers who fail the carbon	emissions	Reduction targets to ramp up their efforts. The
green supply chain. Leveraging innovative ICT technologies to promote carbon	emissions	Reduction in diverse industries. Promoting renewable energy: Applying
leveraging innovative information and communications technology (ICT) to promote carbon	emissions	Reduction in diverse industries. Promoting renewable energy: Applying
Republic of China, we held the Supplier Conference on Carbon	Emissions	Reduction in May 2021, with the goal of informing suppliers

As can be seen from the above tables, both Apple and Huawei show their intentions to cut emissions through specific measures related to direct (scope 1) and indirect (scope 2) emissions, as well as supply chain activities. Apple's reports are primarily based on the combination of technology and energy management to reduce carbon footprint, particularly in the use of products and the supply chain. Other words like 'eliminate,' 'neutral,' and 'minimize' used in the report show that Apple has been very proactive on the sustainability issue. On the other hand, the CSR reports by Huawei pay more attention to setting specific targets for emissions reduction for its suppliers. The frequent use of the term 'carbon emissions reduction' coupled with 'targets', 'goals' and 'mandatory' paints a picture of a more rigorous, results-oriented approach to sustainability. Huawei also focuses on the application of ICT solutions to decrease greenhouse gas emissions in various sectors, which also showcases Huawei's technologies. However, both companies are committed to the long-term reduction of carbon emissions, with Apple highlighting innovation and energy efficiency in its operations and Huawei engaging suppliers and setting targets for emissions reduction.

4.2.6. Analysis of Linguistic Patterns in 'Suppliers' Entries in Apple and Huawei's CSR Reports

The term "Suppliers" can be often found in both Apple and Huawei's CSR reports as a sign of their attitude towards sustainability and environmental friendliness. The two organisations focus on partnership with suppliers to improve the standards of carbon footprint, renewable energy, and environmental management. The following are the KWIC entries for the term "Suppliers" in the CSR reports of the two companies (Table 4.14 and 4.15).

Table 4.14: Selected KWIC Entries of 'Suppliers' in Apple's CSR Reports

Left Context	Hit	Right Context
Holding Ourselves and Our	Suppliers	To the Highest Standards Upholding the highest standards
How We Work With	Suppliers	To the Highest Standards Continual improvement through ongoing stakeholder
Stewardship We look beyond our operations and those of our	Suppliers	To address hared water challenges. This involves engaging with
Potential risks and other sourcing challenges, and worked with	Suppliers	To address such identified risks and challenges and to
Mandate in our Supplier Code of Conduct for all direct	Suppliers	To transition to renewable energy in the manufacturing of
Partnering with our	Suppliers	To help them meet and exceed our workplace and
Carbon neutrality by 2030. We're focused on working with	Suppliers	To help them increase energy efficiency at their facilities
The China Clean Energy Fund, which enables Apple and our	Suppliers	To invest in more than 1 gigawatt of renewable energy

The China Clean Energy Fund: This fund enables Apple and our	Suppliers	To invest in renewable energy. As of March 2024, the
For others to use. Awareness is power. We require our	Suppliers	toprovidetheir employees with training on their workplace

Table 4.15: Selected KWIC Entries of 'Suppliers' in Huawei's CSR Reports

Left Context	Hit	Right Context
We require our suppliers to set carbon emissions reduction targets	Suppliers	And implement them in a bid to
suppliers to set carbon emissions reduction targets	Suppliers	Who are advised to set carbon emissions reduction targets in accordance with the Science Based Targets
Set emissions reduction targets: Set targets for at least five years	Suppliers	And invest resources, in an effort to achieve annual carbon emissions reduction targets.
Huawei clarifies its carbon emissions reduction expectations for suppliers	Suppliers	Who are advised to set carbon emissions reduction targets in accordance with the SBTi
our suppliers' carbon emission is paramount to energy conservation and emissions reduction of the entire industry chain	Suppliers	Participate in carbon emissions reduction has achieved remarkable results.
suppliers opt to use clean energy to meet their carbon emissions reduction goals	Suppliers	Help suppliers understand their emissions reduction potential and achieve their emissions reduction goals.
In 2020, a supplier implemented three carbon emissions reduction projects	Suppliers	Including a roof top PV plant on its property.
Huawei evaluates suppliers' carbon emissions reduction performance	Suppliers	Interms of energy conservation, emissions reduction, and sustainable industry chain.
Set emissions reduction targets: Set targets for at least five years	Suppliers	And implement them in a bid to reduce carbon emissions.
suppliers to increase their efforts in line with carbon emissions reduction initiatives	Suppliers	To rampup their efforts towards sustainability and environmental responsibility.

As seen from the above tables, both Apple and Huawei ensure the role of suppliers in sustainability through carbon emissions and renewable energy. Words such as “highest,” “clean,” and “renewable” are also overused in both companies’ CSR reports to express corporate responsibility and goals. The words “our suppliers” are used frequently, which points to the fact that both companies are closely involved in the formation and support of the necessary changes in the sustainability of the supply chain. This repetition may have been used to enhance their position as leaders in the environmental agenda and their ability to sustain partnerships. Furthermore, there is evidence that both Apple and Huawei have acted in a way that supports their suppliers in the transition towards a low-carbon future and increased sustainability. Apple’s CSR reports show partnerships with suppliers to achieve energy efficiency targets and shift to cleaner energy sources, such as the China Clean Energy Fund. In a similar manner, Huawei’s reports also target establishing carbon reduction targets for the company’s suppliers, encouraging them to adopt clean energy and report their emissions. Nevertheless, the first one is more oriented towards direct emissions reductions and performance

assessment and the second one concentrates on developing long-term relationships as well as on the improvement of suppliers' environmental performance continuously.

4.2.7. Analysis of Linguistic Patterns in 'Packaging' Entries in Apple and Huawei's CSR Reports

The keyword "Packaging" is used more often in both Apple and Huawei CSR reports to show the company's concern about minimizing the effects that packaging has on the environment. Both companies have focused on the use of sustainable packaging material along with the reduced carbon footprint. The following is the KWIC analysis of the term 'Packaging' in both companies' CSR reports (Table 4.16 and Table 4.17).

Table 4.16: Selected KWIC Entries of 'Packaging' in Apple's CSR Reports

Left Context	Hit	Right Context
Fiber and Plastic Footprint Fraunhofer IZM reviewed Apple's corporate	Packaging	Fiber and plastic footprint data related to corporate packaging
Corporate packaging fiber and plastic footprint data related to corporate	Packaging	Fiber and plastic usage from products, retail, and service
Calculate the product-specific packaging. The output is a total	Packaging	Fiber and plastic footprint. For labels, beats products, and
System boundaries are clearly defined. Calculation methodology for the corporate	Packaging	Fiber and plastic footprint. Aggregated packaging fiber and plastic
Our goal is to contribute to the global supply of responsibly sourced fiber	Packaging	Fiber and plastic footprint* (metric tons): Our goal is
Supplier Clean Energy Program (Apex) Supplier Energy Efficiency Program (Apex)	Packaging	Fiber and plastic footprint (Fraunhofer Institute)
Fraunhofer Institute reviewed Apple's corporate	Packaging	Fiber and plastic footprint data related to corporate packaging
AppleCare trade-in program includes responsibly sourced	Packaging	For whole units and service modules (with the exception of
As there is no standardized method available for calculating a	Packaging	Fiber and plastic footprint, Apple defined a methodology for
Phased out. We will continue selling existing inventory of AppleCare	Packaging	For whole units and service modules that contain plastics

Table 4.17: Selected KWIC Entries of 'Packaging' in Huawei's CSR Reports

Left Context	Hit	Right Context
Protecting forests in the process. The use of eco-friendly	packaging	Materials can effectively reduce pollution and contribute to sustainable
Vision and PC packaging, which reduces the use of auxiliary	packaging	materialsby5%. Recycling and circular sharing Logistics technology Packaging
Environmental impact equivalent to planting 50 trees annually. By optimizing the	packaging	Materials for products such as PC and HUAWEI Vision,
Emissions during transportation. We strive to reduce the use of	packaging	Materials and utilize reusable and eco-friendly materials, while

to 43% on average, resulting in a reduction in use of	packaging	Materials by more than 400 metric tons a year. We
Waste. Huawei has been committed to using more environmentally friendly	packaging	Materials to minimize environmental pressure. We use more recycled
with the world's leading environmental protection standards, the new	packaging	Material suseno mineral oils in its printing inks
Effective communications. Since September 2020, we have thoroughly optimized our logistics	packaging	For products shipped from China to Europe, Middle East &
Reusable and eco-friendly materials, without compromising product protection.	packaging	For maximum space utilization Well-designed packaging using lightweight
Label for the environmental protection feature. Huawei constantly improves the	packaging	Design for its products and reduces and gradually eliminates

Apple and Huawei both pay attention to the sustainability of the packaging material, but in a different way. Apple's communications focus on fibre and plastic packaging and specifically on the work to establish methods to measure impacts and use responsibly sourced resources. This can be seen in the measurement of the use of fibres and plastics in each of the provided products and services. On the other hand, Huawei CSR reports cover areas such as eco-friendly packaging designs, recycling, and minimising the environmental footprint of packaging materials by using lightweight and recyclable packaging. Both companies show their sensitivity towards the environment in packaging since Apple has a more structured approach based on data and metrics, and Huawei prioritises material improvements and operational changes.

4.2.8. Analysis of Linguistic Patterns in 'Sustainability' Entries in Huawei and Apple's CSR Reports

The concept of 'Sustainability' is widely used by both companies in their CSR reports to show their concern towards the environment and future sustainability. The frequency of "Sustainability" in various contexts, such as climate action, responsible sourcing, and community engagement, highlights each company's strategic focus on sustainable practices. The tables below provide further insight into how and in what capacity 'Sustainability' is used by both Apple and Huawei (Table 4.18 and 4.19).

Table 4.18: Selected KWIC Entries of 'Sustainability' in Apple's CSR Reports

Left Context	Hit	Right Context
Apex's standard procedures and guidelines for external Verification of	Sustainability	Reports, based on current best practice in independent assurance.
Climate Justice Hub, which integrates environmental justice, climate change, and	Sustainability	And resilience while engaging and connecting with various communities.
Business objectives with climate goals. (Executive member) MIT Climate and	Sustainability	Consortium (MCSC) Galvanizing the business community to have an impact.
And others in our industry in order to advance the	Sustainability	Of local water resources around the world.
Restore Fund projects. Through our engagement with the MIT Climate &	Sustainability	Consortium, Apple is jointly funding research with PepsiCo and other firms.
Regulated wastes, working to assess disposal methods, availability, economics, and	Sustainability	Driving solution sinternally through communication, reporting, and education.

Pool of Black, Hispanic/Latinx, and Indigenous scientists trained in	Sustainability	For global high-value companies.
The Responsible Minerals Initiative (RMI). RE100 RESOLVE is a leading	Sustainability	NGO driving sustainable solutions to critical social and environmental issues.
Salmon Gold project with Tiffany & Co., led by RESOLVE, a	Sustainability	Non-profit. The project works with small-scale miners for responsible sourcing.
Include, without limitation, any failure to meet stated environmental or	Sustainability	Targets, goals, and commitments, and execute our strategies effectively.

Table 4.19: Selected KWIC Entries of 'Sustainability' in Huawei's CSR Reports

Left Context	Hit	Right Context
activities for public good 96 Appendix 96 About This Report	Sustainability	Management Information Accessibility Education and Health Environmental Protection Corporate
Rides, indoor surfing, concerts, and urban photography workshops. 07	Sustainability	Management Information Accessibility Education and Health Environmental Protection Corporate
launched by the Phoenix Lab of ifeng.com. 11	Sustainability	Management Information Accessibility Education and Health Environmental Protection Corporate
experience activities in 44 cities across 30 provinces in China. 12	Sustainability	Management Information Accessibility Education and Health Environmental Protection Corporate
To overcome challenges and improve their daily lives. 18	Sustainability	Management Information Accessibility Education and Health Environmental Protection Corporate
time. It is accurate even in noisy environments. 17	Sustainability	Management Information Accessibility Education and Health We regularly invite
by providing them with more advanced accessibility features. 15	Sustainability	Management Information Accessibility Education and Health Environmental Protection Corporate
simplifies operations, making the UI more elderly-friendly. 20	Sustainability	Management Information Accessibility Education and Health Environmental Protection Corporate
in his favorite color using Smart Q&A. 14	Sustainability	Management Information Accessibility Education and Health Environmental Protection Corporate
than 13 million users in its innovative research projects.	Sustainability	Management Information Accessibility Education and Health Environmental Protection Corporate

Apple's application of the term "Sustainability" is often tied to certain environmental concerns like climate, water, and waste. These terms are in line with Apple's strategic approach of promoting tangible environmental footprints and incorporating sustainability in its operations. However, Huawei uses the term in a more general way, associating it with the general concept of corporate responsibility, including accessibility, the public interest, and community participation. While both companies refer to the term in the context of ecological concerns, Apple is more specific about its environmental goals and partnerships, while Huwaei's approach is broader, including social and technological aspects of sustainability. This contrast reveals their sustainability stories, where Apple has embraced climate and resources management while Huawei has embraced social sustainability, where everyone is included.

4.2.9. Analysis of Linguistic Patterns in 'Health' Entries in Huawei and Apple's CSR Reports

The examination of the language use of the term 'Health' in the CSR reports of both Huawei and Apple reveals the following trends. This paper finds that both cases pay much attention to the health of their stakeholders, especially in the areas of supply chain and operations. The following tables show how each of the companies has incorporated the concept of health within their overall sustainable development and corporate social responsibility strategies (Table 4.20 and 4.21).

Table 4.20: Selected KWIC Entries of 'Health' in Apple's CSR Reports

Left Context	Hit	Right Context
The overall safety of our products and processes. We prioritise the	Health	And safety of the people who make our products.
An inventory of chemicals used in manufacturing. We prioritise the	Health	And safety of the people in our supply chain.
The manufacturing processes of our products prioritise the	Health	And safety of the people working in our supply chain.
The supply chain—and the impact this can have on the	Health	And safety of people working in our supply chain.
Health, Safety, and Wellness: Building a culture of safety. The	Health	And safety of the people working in our supply chain.
Engagement and Advocacy: Environment,	Health	And safety Policy Mission Statement—Apple Inc. is committed.
Cycle assessment methodology, Assurance and review statements, Environment,	Health	And Safety Policy, ISO 14001 certification.
Clean Electronics Production Network (CEPN), we're working to address	Health	And safety challenges in the electronics supply chain.
Enhancements to our supplier requirements that are designed to put	Health	and safety first, now and always.
Principles, practices, and public policy initiatives that enhance environmental quality,	Health	And safety performance, and ethical sourcing of materials.

Table 4.21: Selected KWIC Entries of 'Health' in Huawei's CSR Reports

Left Context	Hit	Right Context
This Report Executive Letter Sustainability Management Information Accessibility Education and	Health	Environmental Protection Corporate Responsibility Appendix Executive Letter He Gang
OSs/UIs. 02 Executive Letter Sustainability Management Information Accessibility Education and	Health	Environmental Protection Corporate Responsibility Appendix Producing more environmentally friendly
enterprise sustainability Executive Letter Sustainability Management Information Accessibility Education and	Health	Environmental Protection Corporate Responsibility Appendix Organization and strategy Sustainable
regulations, and internal sustainability management affairs. Information Accessibility Education and	Health	Environmental Protection Corporate Responsibility Using technology for the benefit
sustainable development. 06 Executive Letter Sustainability Management Information Accessibility Education and	Health	Environmental Protection Corporate Responsibility Appendix, Some of the stakeholder
photography workshops. 07 Executive Letter Sustainability Management Information Accessibility Education and	Health	Environmental Protection Corporate Responsibility Appendix Honors and awards Huawei'

series courses. Executive Letter Sustainability Management Information Accessibility Education and	Health	Environmental Protection Corporate Responsibility Appendix Accessibility honors and awards
ifeng.com. 11 Executive Letter Sustainability Management Information Accessibility Education and	Health	Environmental Protection Corporate Responsibility Appendix Making technology accessible to
in China. 12 Executive Letter Sustainability Management Information Accessibility Education and	Health	Environmental Protection Corporate Responsibility Appendix Harmony OS 4: Improving accessibility and
with impairments. 13 Executive Letter Sustainability Management Information Accessibility Education and	Health	Environmental Protection Corporate Responsibility Appendix Seeing more possibilities He

The data shows that Apple commonly links 'Health' with safety and the well-being of the people involved in its production chain. This is indicative that Apple has put in place various measures to promote the health and safety of its workforce as part of its sustainability measures. Huawei, on the other hand, demonstrates 'Health' within the context of education and environmental protection which shows a comprehensive approach to sustainability that includes health as one of the elements of corporate social and environmental responsibility. They use positive attributes such as safety, environmentally friendly, and sustainability to describe their health-related efforts, and this is a clear strategic decision that conveys a caring corporate image to the stakeholders.

4.3. Analysis of Dissimilar Words in Environmental Narratives Constructed by Huawei and Apple

When comparing and contrasting the language used by Huawei and Apple in their environmental reports, some notable terms come out as pointing to their unique interests. Huawei's reports highlight terms such as "protection" (frequency 344), "responsibility" (frequency 213), "development" (frequency 281), "devices" (frequency 252), "corporate" (frequency 173), "consumer" (frequency 201), "business" (frequency 194), "technology" (frequency 193), and "digital" (frequency 142). The terms "protection" are used quite often to stress the environmental consciousness and the socially responsible approach to product innovation (Table 4.22). The term "responsibility" focuses on the company's ethical supply chain management and corporate governance (Table 4.23). The concepts of development and technology seem to imply technological progress and change towards the attainment of sustainability objectives. The terms "devices" and "consumer" show Huawei's focus on the consumer when advocating for sustainable and responsible products.

Table 4.22: Selected KWIC Entries of 'PROTECTION' in Huawei's CSR Reports

Left Context	Hit	Right Context
Executive Letter Sustainability Management	Protection	Corporate Responsibility Appendix Producing more environmentally friendly products for
Executive Letter Sustainability Management	Protection	Corporate Responsibility Appendix Organization and strategy Sustainable development organization
Executive Letter Sustainability Management	Protection	Corporate Responsibility Appendix Some of the stakeholder activities in 2023
Executive Letter Sustainability Management	Protection	Corporate Responsibility Appendix Honors and awards Huawei's dedication
Executive Letter Sustainability Management	Protection	Corporate Responsibility Appendix Accessibility honors and awards May 2023 Harmony OS 3

Table 4.23: Selected KWIC Entries of 'Responsibility' in Huawei's CSR Reports

Left Context	Hit	Right Context
Sustainability Management Information Accessibility	Responsibility	Appendix Huawei has established a complete responsible supply chain
Sustainability Management Information Accessibility	Responsibility	Appendix HUAWEI Developer Experts (HDE) HDE is a program
Sustainability Management Information Accessibility	Responsibility	Appendix HUAWEI Developers Training HUAWEI Developers Training is the
to enhance its competitiveness in environmental protection.	Responsibility	Appendix Huawei Device prioritizes the sustainability of its products
Sustainability Management Information Accessibility	Responsibility	Appendix HUAWEI Edu Center is for learners of all ages

In contrast, Apple's CSR reports focus on words such as "renewable" (674 occurrences), "recycling" (198 occurrences), "materials" (601), "waste" (417 occurrences), "climate" (342 occurrences), "footprint" (308 occurrences), "communities" (312 occurrences), "impact" (273 occurrences), and "zero" (186 occurrences). Apple has also frequently used the term "renewable" to show their intention to shift from using nonrenewable energy sources (Table 4.24). The terms "recycling" and "waste" point to Apple's efforts to adopt circular economy principles of reducing the environmental footprint (Table 4.25). The terms "Climate" and "Footprint" reflect the company's efforts towards combating climate change and decreasing their environmental impact. "Communities" and "impact" stress Apple's emphasis on social responsibility and their broader positive influence on society.

Table 4.24: Selected KWIC Entries of 'Renewable' in Apple's CSR Reports

Left Context	Hit	Right Context
Usage. More than 175 of our suppliers have committed to using 100%	renewable	Energy for their Apple production. We've diverted more
FY2021, more than 175 of our suppliers have committed to using	renewable	Energy for their Apple production, which will bring more
that more than 175 of our suppliers have committed to using	renewable	Energy for their Apple production, representing a commitment to
To date, more than 175 Apple suppliers have committed to using	renewable	Energy for their Apple production, which will result in
projects in China and Japan. 175+ suppliers have committed to using	renewable	Energy for their Apple production 9+ gigawatts of clean energy

Table 4.25: Table 4.4: Selected KWIC Entries of 'Recycled' in Apple's CSR Reports

Left Context	Hit	Right Context
on production and allocation values. In all cases, Apple defines	recycled	Content in alignment with ISO 14021. Product claims are made
on production and allocation values. In all cases, Apple defines	recycled	Content in alignment with ISO 14021. We do not currently
by sourcing from recovered, rather than mined, materials. Apple defines	recycled	Content in alignment with ISO 14021. 36 We define biomaterials as

in circularity. We're aiming for even greater use of	recycled	Content in our products. Our commitments include using 100 percent
technologies mean we are recovering more materials and using more	recycled	Content in our products than ever. Teams across Apple

These linguistic choices indicate that Huawei's environmental discourse is based on the themes of technological advancement, organizational citizenship, and consumer engagement, while Apple's discourse emphasizes sustainability such as use of green energy, reducing waste, and minimizing the environment footprint.

4.4. Thematic Analysis Based on the Concept ofEcological Discourse Analysis (EDA)

4.4.1. Thematic Analysis: Interaction and Co-existence in Huawei and Apple's CSR Reports

The theme of "Interaction and Co-existence" within ecological discourse focuses on how entities relate to one another within an ecosystem, promoting symbiotic relationships that contribute to broader environmental sustainability. This theme is also apparent in the corporate sustainability reports of Huawei and Apple, in which both companies describe how they are managing the ecological system and practising interconnection. The two companies have adopted the culture of sustainable development by incorporating sustainability principles into their supply chain management.

Huawei's approach to sustainability can also be described by the use of environmentally friendly materials and the increase in the recycling ability of its products. The company also embraces closed-loop management that ensures that the product life cycle is efficient in its usage of resources while being environmentally friendly. This is an indication of interaction and co-existence because it makes it possible for product development to occur without negating the objectives of environmental conservation.

Similarly, Apple has emphasised its efforts to minimise greenhouse gas emissions with the help of supply chain and product usage strategies. Thus, by promoting the use of recycled materials and expanding the share of renewable energy sources in its activities, Apple proves that business has every opportunity to become a breakthrough for the environment. This commitment to interconnectivity not only minimises environmental footprint but also establishes a blueprint for sustainability that permeates through its entire supply chain.

From Huawei's 2024 CSR Report:

"We prioritise the sustainability of our products. By adhering to the fundamental principle of environmental protection compliance, we perform closed-loop management of product lifecycles, as well as sustainable production, through technological innovation."

This quotation encapsulates Huawei's philosophy of interaction and co-existence by showing how sustainability is integrated into each phase of the product value chain. The emphasis on closed-loop management demonstrates an organisational perspective on sustainability because every process is linked to the goal of minimising the environmental impact.

From Apple's 2024 CSR Report:

"We've focused on decarbonizing the three largest sources of emissions — materials, electricity, and transportation — across our value chain."

This statement from Apple is a clear example of how the company has adopted a more comprehensive strategy to sustainability that includes not only emissions but also the changes in the use of materials, energy, and delivery. This approach not only embodies the internal concern about the ecosystems but also helps to stretch the whole industry to follow the green procedure and to harmoniously exist with the environment.

Therefore, languages of sustainability are used by both Huawei and Apple with a focus on interaction and co-existence. Through these approaches, these companies have shown that they are interested

in achieving the overall goal of organisational sustainability while also achieving the general goal of sustainability.

4.4.2.Thematic Analysis: Diversity and Harmony in Huawei and Apple's CSR Reports

The theme of Diversity and Harmony in ecological discourse stresses the role of numerous environmental measures coordinated to support the attainment of effective ecological goals. This theme is clearly seen in the CSR reports of Huawei and Apple because both companies explain their stance towards ecological balance through various methods and integrate these strategies into their operations.

Both Huawei and Apple employ several sustainable strategies, ranging from the acquisition of raw materials to energy consumption and even end-of-product disposal. This diversification of focus means that many aspects of their operations will benefit the environment and have a cumulative effect on their sustainability.

From Huawei's 2023 CSR Report:

"Huawei is passionate about exploring and advancing the circular economy model — as the initial step of material recycling, prioritising safe, eco-friendly, and renewable materials during product design, so that closed-loop flow of materials is possible."

This quote epitomises Huawei's policy of using different types of materials in products and combining design with environmental friendliness. By using green materials, Huawei is protecting the environment and utilising resources sustainably in the context of advancing technology.

From Apple's 2023 CSR Report:

"We aim to make durable, long-lasting products and packaging using only recycled or renewable materials, as well as enhance material recovery. At the same time, we're committed to stewarding water resources and sending zero waste to landfill."

Apple's statement reveals that the company is focused on sustainability through different strategies like products' lifecycle, recycling of material, water use, and minimizing waste. This variety guarantees that every part of their business supports an ecological balance, thus, implementing several sustainability objectives within a single approach.

Huawei and Apple show that it is possible to achieve harmonious diversification of sustainability practices to improve overall environmental outcomes. Huawei has adopted the concept of circular economy in its use of renewable materials and contributes to the transformation of the entire value chain for materials and products. Likewise, Apple's practice with regard to the sustainability of resources and disposal of waste reveals how different practices are integrated to form a systematic and effective environmental policy. From these companies' reports, one can see that the authors understand the interrelation of the various sustainability issues and how different and still coherent solutions can be put into practice. This strategy not only reduces the impact of such firms on the environment but also serves as a reference to other companies that are likely to follow a range of strategies in order to achieve ecological stability. This integration shows a high level of concern towards ecological balance and corporate responsibility and underlines the need to have all the strategies in place to deliver enormous environmental impacts.

5. DISCUSSION

5.1. Linguistic Patterns in Sustainability Narratives Constructed by Huawei and Apple

The analysis shows that linguistic patterns are evident in the CSR reports of Apple and Huawei, especially in terms of ecology and sustainability. The two companies are keen on energy, carbon, supplier, and sustainable product management. While Apple relies on the calculations of its carbon footprint and clean energy transition, Huawei expands social responsibility by including digital capabilities and energy efficiency in its supply chain. These similarities imply that the two companies have a common vision of sustainability, but they have slightly different strategic priorities.

Studies on the topic of corporate sustainability reporting support these findings. According to Landrum and Ohsowski (2018), the majority of CSR reports that appear in the analysed companies

demonstrate the so-called 'business case' approach, where the objectives of the organisation's sustainability are linked with economic profit. This is in harmony with Apple's focus on its supply chain partners in achieving efficiency and carbon-neutral objectives. Likewise, Sisaye (2022) asserts that sustainability reporting combines ecological and organisational paradigms to enable firms to articulate their environmental stewardship while keeping operational performance in check. This is in line with Huawei's strategy of integrating sustainability into the supply chain and day-to-day operations. In addition, Yekini et al. (2021) also pointed out that CSR communication strategies are based on semiotic structures to portray sustainability initiatives in a good light. Apple and Huawei use the same business framing strategy by using words such as "clean energy," "carbon neutrality," and "sustainable innovation". Furthermore, Conrad and Holtbrügge (2021) Also, Conrad and Holtbrügge (2021) noted that big companies use sustainability keywords purposely in their CSR reports to increase credibility and regain the trust of the stakeholders. This pattern is supported by the fact that both companies use the terms energy efficiency, carbon footprint reduction, and supplier sustainability. Accordingly, the patterns identified in the CSR reports of Apple and Huawei resonate with more general trends in corporate sustainability communication in which linguistic strategies are employed to link environmentally responsible actions to organisational strategies and goals.

5.2. Comparative Linguistic Analysis of Huawei and Apple

The comparison of linguistic features in the environmental discourse of Huawei and Apple's CSR reports shows that their CSR reports have different content and structure. Huawei also employs words such as 'protection', 'responsibility' and 'development', which are more of modernisation and stewardship language. On the other hand, Apple has decided to use words like renewables, recycling, and climate, which are suggestive of the company's environmental consciousness.

A comparative analysis of the linguistic features of Huawei and Apple's environmental narratives helps to identify their strategic preferences. Huawei has frequently used concepts such as protection and responsibility in its communication concerning operations and the development of solutions for environmental treatment. This is in accordance with Malyuga (2023), who notes that corporate communication can employ persuasive language to demonstrate organisational accountability and sustainability. On the other hand, Apple's focus on 'renewable' and 'recycling' is an attitude of anticipatory environmental responsibility based on circular economy and climate change. This aligns with Kim and Chon's (2022) study that stated that organisations that construct CSR discourse to those environmental obligations may improve public esteem and support. Additionally, while both reports highlight 'communities' and 'impact', Apple's focus appears to be more on social responsibility than Huawei, which wholly focuses on technology. This shift is not only reflected in the formation of their CSR identities but also in stakeholder communication and CSR perception (Sun et al., 2025). Hence, the differences in language also indicate that each of the companies creates its environmental story in a way that corresponds to its image and strategic vision.

5.3. Integration of Diversity and Harmony in Corporate Sustainability Narratives Constructed by Huawei and Apple

The study finds that the two companies use the interaction and coexistence, and diversity and harmony principles in their sustainability communication. Their CSR also reveal that the firms are not only concern with the ecological system but have integrated approaches in their management with an aim of reducing the impacts they have on the environment.

In light of the Ecological Discourse Analysis (EDA), one can notice that both the sustainability discourses of Huawei and Apple demonstrate an understanding of the fact that the corporation's actions are intertwined with the conditions of the geography. From the EDA perspective, language is thought to capture and reflect ecological thinking, and both companies align with this to promote environmentalism (Cheng, 2022). For example, the concept of closed-loop management and eco-design employed by Huawei's products and services is in line with the EDA thinking that holds that entities are interdependent within an ecosystem (Huang& Pan, 2024). Similarly, Apple's work towards decarbonising its supply chain through new approaches demonstrates that it is possible to have different sustainability strategies at the same time without compromising business operations and for the benefit of the environment (Momoh et al., 2021). Consequently, the evidence indicates that such integrated efforts enhance corporate responsibility and also assist in attaining other

environmental goals. For example, Yu and Kuo (2021) opine that where the corporations' philanthropic activities are aligned with sustainable development goals, it can be a way of balancing business and society. Moreover, Huang and Pan (2024), in his research, reveals that companies like Huawei and Apple, through the enforcement of several sustainability practices, can set the bar for the industry and thus encourage sustainability. This connection of corporate strategy with ecological objectives suggests that companies must find ways and means of diversifying and balancing their activities in the quest for sustainable goals, which is a rather more subtle appreciation of corporate responsibility within today's business environment.

6. CONCLUSION

6.1. Key Findings

This research shows that Apple and Huawei apply linguistic patterns in their CSR reports to enhance the sustainability posture of the two firms. They are both keen on embracing the agenda of energy efficiency and carbon reduction and the integration and management of suppliers. Corporations like Apple also incorporate quantifiable targets, such as carbon footprint and circular material management, in their discourses that are similar to their overall vision of environmental advancement. On the other hand, Huawei has incorporated sustainability in a technological perspective and in a social context whereby energy conservation and environmental management are connected with other social values like the digital divide. One of the most important similarities is that the ideas expressed in both texts correspond to the principles of ecological discourse, including interaction and coexistence, as well as variety and harmony. Whereas Apple focuses on using measurable values and recycled materials, Huawei focuses on the company's responsibility and green technology. These linguistic features indicate that sustainability reporting is not only a conformance instrument but a communication process that informs the audience and defines the corporate image. Thus, this research shows that linguistic strategies mirror deeper organisational philosophies towards sustainability and how both organisations employ strategic discourses to construct themselves as global pioneers in the arena of corporate environmental responsibility.

6.2. Limitations of the Research

Despite the fact that this research has adopted a holistic approach, it presents several limitations that may have an impact on the richness of the results. First, the research is conducted only based on CSR reports of two companies, Huawei and Apple, which may not give a full picture of the industry or cross-cultural communication practices. This small number of entities might give a slightly skewed view of the practices and linguistic strategies of these two organisations rather than the broader picture of the industry. Furthermore, the study period is limited to four years; thus, it is difficult to track changes and developments in the evolution of corporate sustainability language. Another limitation is based on the features of the mixed-methods design. The utilisation of both quantitative and qualitative data enriches the analysis, but the fusion of these different techniques may pose some difficulties in harmonising the data and findings, which might affect the overall logic and coherency of the results.

6.3. Future Recommendations

The following recommendations are made to overcome the limitations that have been realised in this study and to improve future research. Future studies should consider enlarging the sample to comprise CSR reports from more organisations in various sectors and from different countries to give a comprehensive view of the ecological discourse in CSR reports. This expansion could also allow for a cross-sectional analysis of different industries, identifying specific examples of sustainability and linguistic approaches specific to particular industries. Moreover, expanding the time horizon of the research might help to see the changes in the development of corporate sustainability narratives and observe the changes in the environmental agendas and plans. Also, the methodological framework could also be enriched with more sophisticated linguistic tools or computational models to process a larger amount of textual material and provide a more accurate and systematic identification of topics and the connection of the quantitative and qualitative data. These recommendations are intended to extend the existing knowledge about sustainability communication within and outside the tech sector.

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