

Environmental Sustainability Contents on Company Owned Media across Business Sectors

**Nugrahaningtyas Fatma Anyassari^{*1}, Hiqma Nur Agustina², Rizka Rahmawati³,
Rina Rachmawati⁴, Rizky Kurniawan Mutiyanto⁵**

^{1,2}*English for Business and Professional Communication, Business Administration,
Politeknik Negeri Malang, Indonesia*

³*Business Administration, Business Administration,
Politeknik Negeri Malang, Indonesia*

⁴*English for Tourism Industry, Business Administration,
Politeknik Negeri Malang, Indonesia*

⁵*Marketing Management, Business Administration,
Politeknik Negeri Malang, Indonesia*

**Corresponding email: nfanyassari@polinema.ac.id*

Abstract

Keywords:

*sustainability, ESG,
environmental,
language, business
communication,
owned media*

This study explores environmental sustainability contents and sub-contents on company's owned media across three different business sectors. A corpus-based content analysis on 226.275-token corpus shows that the business sectors selectively posted environmental sub-contents to their own media types such as social media and website. Although all environmental sustainability contents and sub-contents were present in this study, some sub-contents such as transport, waste and pollution, energy and renewable resources, water scarcity, natural resources and raw materials consumption, bio and eco technology, and green chemistry were communicated differently across business sectors depending on how their business operation impacted the environment. However, sub-contents related to gas emission, global warming, ecosystem preservation, and recycling upcycling were presented similarly pointing at one mutual goal. The message was consistent despite different owned media types although the message on social media was more general and selected. This study suggests corporate communication division consider contents and sub-contents of environmental sustainability in addressing the message to the public.

|| Received: 20/07/2026

|| Accepted: 29/07/2026

|| Published: 30/07/2026

1. Introduction

Reporting environmental sustainability by companies has been well-established since long time ago (Larrinaga and Bebbington, 2021). However, it was mainly reported to investors and other shareholders. Lately, the growing awareness of environmental sustainability has extended well beyond investors to the public. The need to communicate environmental sustainability activities to the public has become increasingly important (Gonçalves & Gaio, 2023; Han, 2024) because the public can contribute to communication message co-creation (Siano et al., 2016). If companies neglect it, they will risk their reputation. Moreover, studies have consistently showed that the public do not only seek out company's sustainability claim but also thirst for real action (O'Dwyer et al., 2005; Xiao and Shailer, 2021). Communicating environmental sustainability to the public nowadays is not enough to only use magic words such as 'sustainable' or 'green'. Unless companies transparently disclose their sustainability actions, they can be considered more inclined to greenwashing, a term first popularized by Jay Westervelt in 1986 (de Freitas Netto et al., 2020). As a result, different communication approaches should be made.

In conducting environmental sustainability communication to the public, companies utilize a variety of channels, one of which is company-managed channels, commonly known as owned media. Because it is fully controlled by the company, the material uploaded to owned media can be strategically designed to further strengthen image-building efforts. Website is probably one common owned media that a company is considered to build. Breeze (2013) mentions that company websites are important and visible for the public to access information about the company. The information can lead the public to learn and raise positive attitude (Gong and Cummins, 2020). As a result, a company website can be a strategic promotional media, albeit indirect one (Anyassari et al., 2025). As social media has been pervasive in society, especially for younger groups, companies gradually embrace the public shift in consuming information from social media. This adds social media platforms to owned media types. Despite using social media as an entertainment platform, companies deliberately infuse information to it to disseminate image-led business activities. Puschmann and Hagelmoser (2014) argue that social media has been proven versatile tools in accommodating company's communication goals especially the external one. Leveraging the strengths of website and social media accommodates companies to communicate their sustainability actions to the public in order to avoid greenwashing accusations. For example, the information on a company website can be posted in various formats such as copy (persuasive text), long articles, images, or videos. All of them can be connected with the use of hyperlinks or presented in an interactive way which does not only satisfy the public curiosity but also arouses their interest. Moreover, the website contents can be converted into short but comprehensive captions on social media about a certain sustainability action which engages the public. In other words, each owned media type requires different communication approach which leads to content selection.

Previous studies on environmental sustainability communication mainly focused on a stable text type namely sustainability reports (Sneideriene and Legenzova, 2025). The way environmental sustainability is communicated on website and social media together needs more elaboration. If any, Wei (2020) studied more than 400 companies from various business sectors to find the themes of environmental sustainability communication in the company websites as well as how pronouns and keywords were used. Despite being influential, Wei's study inclusively analysed data from various companies into one, leaving unique strategy each company perform. Fuoli and Beelitz (2025) have found that environmental sustainability communication is sector-specific, making cross-sectoral analysis worth conducting. Moreover, Wei's study only focused on company websites without any elaboration on how the message was transferred onto other companies' owned media type such as social media. This limits the potential of social media elaboration in business communication to reach wider audience as stated by Puschmann and Hagelmoser (2014). As nowadays there is a demand for companies to reach wider audience to publish their environmental sustainability activities, investigating the message on social media can be deemed pressing. Herrada-Lores et al. (2024) probably gave illustration on communicating sustainability on social media although it was used as marketing communication. Moreover, their study only took sustainability generally making sustainability more normative.

Therefore, this study was conducted to contribute to gap filling by addressing the following research questions:

1. how does environmental sustainability content (and sub-contents) vary across business sectors?
2. how do environmental sustainability contents vary across owned media types?

Accordingly, this study pursues two objectives:

1. to identify the distribution of environmental sustainability contents (and sub-contents) across business sectors; and
2. to identify the distribution of these contents across owned media types.

This study is expected to give contribution in exploring how environmental sustainability is narrated on two companies' owned media (website and social media) especially to the public. Moreover, this study explored 25 companies clustered in 3 different business sectors in order to analyze variation across the sectors. Including various business sectors allows exploration on environmental sustainability contents tailored to specific sectoral domain. It helps enrich the patterns of sustainability communication. For professional communication, the findings offer an evidence base for practitioners who design sustainability messages for public audiences, by showing which contents are conventionally foregrounded in a given sector and which are better suited to a given platform. This supports more deliberate content selection and reduces reliance on the generic vocabulary that invites greenwashing accusations. The following section presents literature review as the framework of this study. Then, it is followed by

explanation about method of the study. Finally, results are presented along with interpretation, limitation, and further research in conclusion.

2. Literature review

2.1. ESG Framework to Report Sustainability

Reporting sustainability for companies has been mandatory to their business practice. Breeze (2013) argues that since companies operate commercially, they have to make positive impact to society. The positive impact then constructs their credibility which benefits the business operation. Previously, the core issue to be reported was environmental impact; social impact was then included in the report especially under the name CSR (Gray et al., 1995). Over time, these streams broadened and became institutionalized as sustainability reporting, especially around the rise of the GRI (Global Reporting Initiative) in the late 1990s and early 2000s (Larrinaga and Bebbington, 2021). ESG (environmental, social, governance) emerged primarily from the responsible investment field rather than from sustainability reporting alone. Macneil (2022) argues that ESG is a structured framework used by investors to assess the sustainability translation as sustainability itself tends to be normative and broad. Although ESG became strongly investor-oriented, it remains closely connected to sustainability because it translates broader sustainability concerns into categories that can be used in investment analysis and corporate evaluation. In this sense, ESG is not simply a new label for sustainability, but an investor-centered framework through which sustainability-related issues became institutionalized in corporate and financial practice (Raihan and Sarker, 2026).

From investor-centric framework, ESG has been used to communicate sustainability to wider audiences and proved to give positive benefits for companies. For example, Gutierrez Ponce et al. (2021) found that companies publishing more ESG-based information on their websites gained higher profitability than those who disclosed less. Similarly, Waites (2025) demonstrated that companies emphasizing ESG communication affected customer's trust and purchase intention. This shows that ESG framework is also applicable to deliver messages about sustainability to public.

2.2. E for Environmental: Content and Sub-contents

Environmental content in ESG is a core part of sustainability communication and is often the most visible part of online sustainability narration. The practice seems to be rooted from the well-established practice of reporting environmental impact that companies have been dealing with since long time ago (Larrinaga and Bebbington, 2021). Environmental content refers to how firms communicate their impact on the natural environment and the actions they take to reduce or manage them. Each business sector performs different practices to provide positive impacts to the environment. The business sector is required to state the practices transparently as part of aligning with social convention so that its commercial operation can remain ongoing (Breeze, 2013). By doing this, the company

can gain trust from and be perceived credible by the public, which benefits the business operation.

The definition of environmental sustainability content on corporate websites and social media needs to be operationalized. Confetto and Covucci (2021) develop a taxonomy of sustainability communication topics that can guide digital content managers orchestrate sustainability contents to engage the public in the current practice of digital communication. The taxonomy encompasses ESG dimensions, but this study only focuses on the E for environmental. In Confetto and Covucci's (2021) taxonomy, environmental is defined as two-stage hierarchy. In this study, the first stage refers to content, and the second stage refers to sub-content. There are four contents that define environmental sustainability communication: environmental footprint, climate change, biodiversity protection, and green innovation. Environmental footprint consists of five sub-contents namely natural resources and raw materials consumption, water scarcity, energy and renewable resources, waste and pollution, and product opportunities. Climate change consists of four sub-contents; they are gas and emissions, global warming, deforestation, and transport. Biodiversity protection has three sub-contents: ecosystem preservation, animal welfare, and sustainable agriculture. Other three sub-contents belonging to green innovation are bio and eco technology, green chemistry, and recycling and upcycling. Environmental content is therefore not only about saying that a company is "green," but about showing specific environmental issues, targets, and solutions, often through issue hubs, metrics, and technical claims about environmental responsibility (Confetto and Covucci, 2021).

Taken together, the literature reviewed here supports treating environmental content as a structured and managed category rather than a general theme. Confetto and Covucci's (2021) two-stage hierarchy convert that broad and normative environmental sustainability into a finite set of contents and sub-contents, and in doing so makes environmental communication describable at a level specific enough to be compared across companies, sectors, and platforms. Practically, the same hierarchy is the means by which technical environmental matters are broken into topics the public can recognise and navigate easily, and by which digital content managers organise and index the contents they publish on company owned media. It is on this basis that the environmental content and sub-content are adopted here as the codebook for the analysis. See Appendix 1 for the details.

2.3. Digital Media to Communicate Sustainability

The advance of digital media as a means of business communication has been embraced by companies to communicate sustainability. Website and social media are two platforms that companies use to mediate their digital communication (Breeze, 2013; Puschmann and Hagelmoser, 2014; Koller and Darics, 2018) including environmental sustainability to the public. As digital media, websites and social media possess a distinct characteristic such as interactivity compared to printed media.

Interactivity on a company website can be understood from user control. Breeze (2013) mentions that user control means the user can choose the timing, content, and path to access information provided on a website. Because the user has full control to access a website, structuring texts as the contents on the website needs careful planning in order to direct the user to the intended objective. Askehave and Nielsen (2005) state that texts on websites must be treated differently than traditional ones as the former contain navigating mode. Navigating mode explains how texts on a website have connected each other with the help of hyperlinks. In addition, website users have non-linear exposure as they have full control in navigating the texts. Considering the navigating mode, the spread of sustainability information on websites in the form of short copy on one page and long article on another page accommodate the audience's customized flow in consuming the information. By structuring the information across the website, companies navigate the information exposure to the user and enhance the visibility of sustainability information to the public as the website audience.

Interactivity on social media means dialogical communication as this platform is oriented to engage with audience and accommodates two-way communication. Kietzmann et al. (2011) in Darics and Koller (2018) introduce seven blocks of social media functionality which is called 'honeycomb framework'. The 'honeycomb framework' explains how social media functions in digital communication and suggests companies tailor the message accordingly. Conversations, one of the seven blocks, characterize social media function in business communication by which users engage and communicate with each other. Ahmed et al. (2025) argue that by investing ESG communication on micro level on social media companies accumulate reputational capital. Therefore, integrating social media in sustainability communication is important for companies in addition to the publication on company websites. However, as Jha and Verma (2024) suggest, when social media is used to communicate sustainability, company should adapt the content to social media type of audience. This means that sustainability contents might selectively be presented on social media due to the different characteristics of the audience.

Understanding the nature of digital communication can help companies adjust the structure of information they previously presented on printed materials. In addition, by understanding the characteristics of platforms that accommodate digital communication, companies can plan contents for environmental sustainability communication strategically. If the plan is executed well, companies may hinder greenwashing accusations which increase public trust to the business operation.

3. Method

3.1. Research Design

This study utilized corpus-based content analysis, a research method combination proposed by Kutter and Kantner (2012) to achieve high internal validity and increase in effectiveness through semi-automation. In business communication, Pollach (2012)

reframes this research method combination into the contribution of corpus linguistics into computer-aided content analysis. Despite different terms, Kutter and Kantner (2012) and Pollach (2012) propose similar thing, that is, utilizing lexical choices for inference-making. The combination of two research methods is considered suitable in this study due to four reasons. First, the area of this study covers an intersection between business communication and language, particularly how companies communicate sustainability in their owned media, which is relevant to proposition by Pollach (2012). Second, corpus analysis allows us to see the naturally occurring phenomenon especially in online communication such as web-mediated business communication from the smallest unit of analysis, words (Kutter and Kantner, 2012; Collins, 2019). Third, statistical measures such as log likelihood (G^2) and log ratio allow further analysis about significant unusual keywords in each target corpus against reference corpus (Pollach, 2012; Gabrielatos, 2018). Fourth, the keywords then provide a starting point to analyze different narration executions across business foci and company owned media, making it more meaningful compared to word frequency alone. By using corpus analysis to assist with content analysis, the research result is expected to be more targeted and rigorous.

3.2. Corpus Descriptions and Business Sector Selections

Rather than using well-developed general corpora, we argue that a specialized corpus can serve the analysis better because the specialized corpus aligns with the research objectives. Moreover, the specialized corpus can be adapted to the expertise of us, making the analysis process more truthful as internal validity can be well maintained. Most importantly, specialized corpus allows comparison with more general ones to find what is distinct in it, making research findings more unique and richer. As a result, a specialized corpus was built by following a purposive sampling technique with three criteria. They are: (1) the company is included in the list of Fortune and Korn Ferry's the world's most admired companies as of February 2025, (2) there is a sustainability narrative on the company's owned media, both websites and social media, (3) the narrative uses English. As the data for building the corpus was taken from the publicly open owned media such as website and social media, the specialized corpus was considered fulfilling ethical consideration. Moreover, the specialized corpus built for this study is not shared publicly for other objectives to regard copyright issue.

A group of six student research assistants were recruited to collect the data. They attended a one-day briefing with us regarding the criteria, procedure, and compilation of the data. Regarding the criteria, the student research assistants were asked to look for website contents posted from 2025 which mention, describe or explain sustainability actions. Their background knowledge that they had gained in previous course about pages on company website as seen from genre perspective helped them accelerate the comprehension of company website content (for the course instruction see Anyassari (2025)). They browsed throughout the company website pages such as news pages or sustainability pages. They found that some companies built another separate website focusing on sustainability actions which was linked to main company website. After

comprehending the criteria of data selection, they compiled the data by manually copying-pasting the company website content on to Ms. Word and labelled the file with the initials of the company's name along with the type of media for practical data identification. Similar steps were replicated to compile data from company social media.

The files were then categorized into three forms based on owned media types; they are website copy which refers to short descriptions directly written onto the website especially for navigational purposes, website articles which is longer than website copy and usually taken from news page, and social media captions. All corresponding URLs were also summarized in Ms. Excel to provide easy tracking. We supervised the data compilation twice by checking each file the student research assistants had collected and matching it to corresponding URLs. Some revisions were also conducted to adjust the data based on the defined criteria. After 2-month compiling, a corpus comprising 226.275 tokens (text only) was obtained from 25 companies which were divided into 3 smaller corpora based on 3 different business sectors each of which was divided into 3 sub-corpora based on owned media type, resulting in 9 sub-corpora. The corpus is raw, meaning that, it is not tagged yet. See Table 1 for company mapping to business sectors and see Figure 1 and 2 to find data proportion. The company's names were anonymized for mitigating analysis bias. Those three business sectors are computers and communication, financials, and transport.

Those three business sectors are distinct from each other in terms of their business impact to the environment which potentially will have different sustainability communication. For example, computers and communication business sector attracts public scrutiny over the emissions arising from the high electricity demand of its data centers due to its booming AI products (Charfeddine and Umlai, 2023; Freitag et al., 2021). Moreover, the heat that the data center produces also needs abundant water to cool it down, leading to water scarcity (Lei et al., 2025). Transport business sector is probably the most direct gas emitter due to its business operation and products. Analyzing its sustainability content may potentially illuminate the public expectation on sustainability practice that transport business sector has integrated. Although financials business sector is considered as a service-based business with intangible products and performs more as the support system, its position is pivotal in achieving global sustainability objectives (Raihan and Sarker, 2026). As a result, sustainability communication contents about how financials business operation support the system remains of the public interests. By selecting those three different business sectors, it is expected that this study can provide a juxtaposition on how environmental sustainability is communicated accordingly. Through purposive sampling technique this study aims to explore the cases specifically, making the results more situational rather than general.

3.3. Data Analysis

After the specialized corpus had been built, it was analyzed in two phases. A corpus toolkit named AntConc 4.3.1 (Anthony, 2024) was used to assist the analysis. The toolkit was chosen because of its free accessibility and complete features which were necessary for the analysis process, specifically Keyword and KWIC (Keywords in Context) features. Phase 1 focused more on corpus analysis in which keywords search was conducted. The 9 sub-corpora were set as the target corpora; meanwhile AmE06 (Potts and Baker, 2012) which is freely available on AntConc 4.3.1 became the reference corpus. The selection of AmE06 as the reference corpus, despite being freely accessible, is because of its distinct contents compared to the target corpus. The distinct contents when compared then result meaningful keywords from the target corpus. Two statistical measures used were log likelihood (G^2) and log ratio. These two measures provide more significant and meaningful results rather than pure normalized word frequency alone. For the analysis, G^2 was set 4-term with threshold $p < .001$; meanwhile log ratio threshold was 1. Relevant keywords were selected based on the combination result of keyness (G^2) and effect size (log ratio).

In phase 2, once the keywords were selected, an LLM-assisted content analysis was conducted to further analyze environmental sustainability contents. Sub-content was also analyzed to see the variation across business sectors and owned media types. The decision of keyword selection and environmental sustainability content mapping to which each keyword fell into was guided by operational definition in a codebook which had been developed before (See Appendix 1). In other words, LLM was utilized to code deductively under human supervision. This is in line with Chew et al. (2023) who proposed LLM-assisted content analysis and demonstrated how it helped human coding resolved problems due to insufficient expertise. However, as Chew et al. (2023) also highlight, LLM-assisted content analysis is not meant to replace human's manual analysis but rather a tool to accelerate human's deductive coding. The LLM selected in this study was Claude Opus 4.7. The prompt was adapted from Fuoli and Beelitz (2025), and the details were attached in Appendix 2. Unit of analysis in phase 2 was the selected keywords serving a penchant to one of environmental sustainability contents. The decision of integrating Claude in the analysis stage is informed by the study of Gillings and Jaworska (2025) whose methodological triangulation showed high inter-analyst agreement between topic analysis results done by decontextualized LLM assistance and contextualized human close reading. This indicates that LLM assistance can approximate human categorization in terms of consistency. However, as Gillings and Jaworska (2025) caution, LLM-assistance analysis resulted more generic topic which hindered it from detailed topics human close reading performed. As a result, in this study, after LLM had assisted the analysis, we manually made the final decision by inspecting concordance line in which the keyword belongs using KWIC feature of AntConc 4.3.1. Inspecting concordance lines resemble human close reading by which researchers can see how keywords perform in a context and what topic they incline to, which LLM lacks. The data were then summarized and displayed in the form of tables. Finally, the results were interpreted, and a conclusion was drawn.

Table 1. List of companies based on business sectors

No	Business Sectors	Company	Tokens
1	Computers and communication	1. AP 2. MI 3. AM 4. SF 5. AC 6. IB 7. SN 8. AD	104.467
2	Financials	1. BR 2. JP 3. AE 4. GS 5. BL 6. US 7. VS 8. MS 9. BA 10. MT	68.624
3	Transport	1. DA 2. UP 3. CT 4. FX 5. BM 6. TM 7. SA	53.184

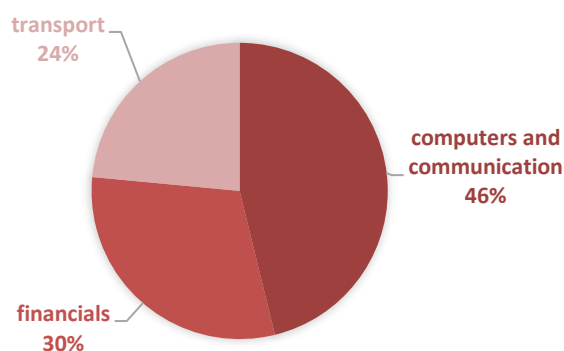


Figure 1. Corpus proportion based on business sectors

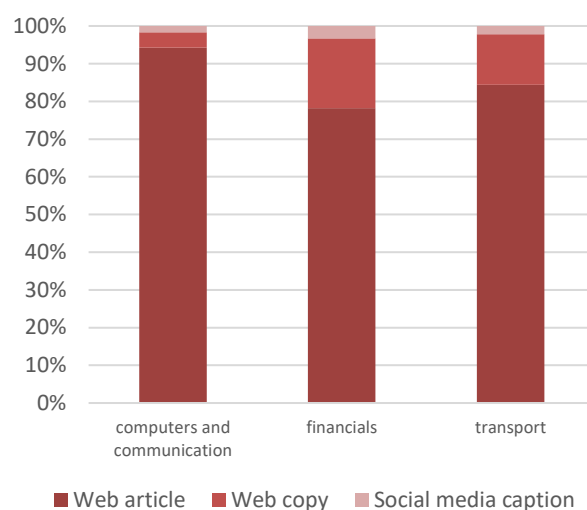


Figure 2. *Corpus proportion based on types of owned media*

4. Findings and Discussion

4.1. Similar Sub-contents across Business Sectors

As seen in Table 2 gas and emissions sub-content shared mutual keywords despite business sectors and owned media types; they are carbon, net zero, neutral, scope, and decarbonize. This finding is in line with Fuoli and Beelitz (2023) who found an increasing frequency of net zero in their data which contributed to the public awareness. The mutual keywords show that all business sectors communicate their action similarly across owned media types related to carbon emissions. It shows that all of the business sectors oriented to mitigate carbon they produced during business operation to achieve carbon neutrality or net zero based on scope of carbon impact their business produced. This can be understood because companies have to comply with GHG protocols which is used as global standards for measuring and reporting gas emissions and mitigation actions from private and public sector organizations and value chains (Ranganathan, 2024). In addition, the lexemes of ‘decarbonize’ (decarbonizing, decarbonization) and ‘neutral’ (neutrality, neutralization) show repetitive contextualization in communicating the carbon mitigation.

Global warming sub-content appeared mostly on website of all business sectors. In addition, social media of computer and communication and financials business sector also exposed this sub-content. Unlike gas and emissions sub-content, global warming sub-content shared limited mutual keywords across business sectors and owned media types. If any, ‘climate’ was the only one, and the finding is in line with Jaworska (2018) who found companies’ preference in using the word ‘climate’ in climate change rather than global warming. From a close reading on the concordance lines, one pattern was found; business sectors narrated their positive contributions to mitigate the impact of global warming such as wildfire, flooding, typhoon, and hurricane. Financial and computer and communication business sectors positioned their products to give solution;

meanwhile transport business sector created or joined a program that provides solutions. The integration of products as sustainability communication is in line with Bittner-Fessler and Weicht (2020) who reconceptualise sustainability communication by making products or services as the content.

Ecosystem preservation sub-content was presented similarly across business sectors. Ecosystem preservation sub-content touched issues about restoration, conservation, and preservation of forest, ocean, and wetlands. The issue was consistent across owned media types. Animal welfare and sustainable agriculture are the other sub-contents which together were presented by financials business sectors on its all owned media types. The other two business sectors presented one sub-content. Animal welfare sub-content focused on pollinators to conserve species from extinction; meanwhile sustainable agriculture sub-content focused on agricultural alternative techniques.

Recycling and upcycling sub-content was communicated similarly in all business sectors and owned media types. The lexemes of 'recycle' (recycled, recycling, recyclable, recyclability) show that the action of recycling was pondered. In transport business sector the preparation of upcycling was specifically described by the lexemes 'dismantle' (dismantling) on its website. Similarly, computer and communication business sector presented it by the word 'disassembly' and 'repurpose'. Moreover, the two business sectors also touched on the issue of circularity as the purpose of upcycling.

4.2. Different Sub-contents across Business Sectors

Transport sub-content, despite appearing mostly on website of all business sectors, was communicated differently in each business sector. In computer and communication, transport sub-content was about the internal practice of logistics, delivery, and shipping in supply chain that mitigate contribution to global warming. Financials, as part of service-based business sector, positions itself as a partner that supports transport industries such as aviation and EV makers, and transport practices such as business travel and transit mitigate global warming. The most detailed presentation of transport sub-content appeared in transport business sector. It presents how transport products such as cars, trucks, along with the features such as engine and flaps operate sustainably by not emitting or consuming excessive gas. It also explains the sustainable work process in which transport business operates such as fleet, linehaul, and shipping by choosing the least gas-consumption route. This detailed explanation can be understood because transport business sector is close to environmental sustainability issues as the business emits, by business nature, more gas compared to financials and computer and communication. The way transport business sector integrates its products and work process in environmental sustainability communication is in line with Bittner-Fessler and Weicht (2020).

Waste and pollution sub-content in computer and communication and transport business sector covered the practice on land, in water, and in air; meanwhile financials only focused on the land.

Table 2. Environmental sustainability content and sub-content on company's owned media across business sectors (content sub-content)

<i>Business Sector</i>	<i>Owned Media Type</i>		
	<i>social media</i>	<i>website article</i>	<i>website copy</i>
computer and communications	Climate change	Climate change	Climate change
	Gas and emissions <i>zero, net, carbon</i>	Gas and emissions <i>carbon, zero, net, decarbonization, decarbonizing, decarbonize(s), credits, neutral, neutrality, neutralization, scope(s)</i>	Gas and emissions <i>carbon, neutral, dioxide, scope, decarbonize</i>
	Global warming <i>climate, cyclones,</i>	Global warming <i>climate, wildfire(s), heat, temperatures, fires, extreme, flooding</i>	Global warming <i>climate, celsius</i>
		Transport <i>logistics, delivery, shipping</i>	Transport <i>delivery</i>
		Deforestation <i>deforestation</i>	
	Environmental footprint	Environmental footprint	Environmental footprint
		Energy and renewable resources <i>datacenter(s), grid(s), electricity, solar, cooling, efficiency, efficient, efficiencies, hydrogen, battery(s), wind, refrigeration, chiller</i>	Energy and renewable resources <i>electricity, grid(s), efficiency, solar</i>
		Water scarcity <i>water, replenishment, replenishing, replenish, WUE (water usage effectiveness), watershed(s), rainwater</i>	Water scarcity <i>water</i>
	Waste and pollution <i>waste</i>	Waste and pollution <i>packaging, waste, plastic(s), bags, wastewater, air, refrigerants, electronics, landfill(s)</i>	Waste and pollution <i>waste, packaging, pollution cfc (chlorofluorocarbons), wastepaper, remediation, pcbs (polychlorinated biphenyls)</i>
		Natural resources and raw materials consumption <i>cobalt, steel, clt (cross-laminated timber), timber, limestone, lithium, cement, tungsten</i>	Natural resources and raw materials consumption <i>manufacturing</i>
	Green innovation	Green innovation	Green innovation

<i>Business Sector</i>	<i>Owned Media Type</i>		
	<i>social media</i>	<i>website article</i>	<i>website copy</i>
financials	Recycling and upcycling <i>recycling</i>	Recycling and upcycling <i>recycled, recycle, recycling, reuse, disassembly, circularity, repurpose</i>	Recycling and upcycling <i>recycling, recycle</i>
		Bio and eco technology <i>DAC (Direct Air Capture), algae, microalgae</i>	
		Green chemistry <i>carboncure, chemistry</i>	
	Biodiversity protection	Biodiversity protection	Biodiversity protection
	Ecosystem preservation <i>forest(s), oceans, tree, rainforest</i>	Ecosystem preservation <i>ocean(s), restore, restoration, restoring, conservation, conserve, conservancy, forest(s), tree(s), protecting, protect, mangrove(s), wetland(s)</i>	Ecosystem preservation <i>biodiversity</i>
	Animal welfare <i>macaw</i>	Animal welfare <i>wildlife, beekeeping</i>	Animal welfare <i>pollinator</i>
	Climate change	Climate change	Climate change
	Gas and emissions <i>carbon, netzero, neutrality</i>	Gas and emissions <i>carbon, net, zero, decarbonization, decarbonize, decarbonizing, decarbonized, neutrality, scope</i>	Gas and emissions <i>carbon, net, zero, neutral, neutrality, GHG (greenhouse gas), scope, decarbonization</i>
	Global warming <i>climate</i>	Global warming <i>climate, wildfires, typhoon, overshoot, heat</i>	Global warming <i>climate, hurricane, katrina, wildfires</i>
		Transport <i>aviation, ev(s), travel, transit</i>	Transport <i>transit</i>
		Deforestation <i>deforestation</i>	
	Environmental footprint	Environmental footprint	Environmental footprint

Business Sector	Owned Media Type		
	social media	website article	website copy
	Energy and renewable resources <i>renewable</i>	Energy and renewable resources <i>solar, grid(s), charging, chargers, electric, electricity, fuel, efficiency, buildings</i>	Energy and renewable resources <i>efficiency, electricity, solar, buildings, grid</i>
	Water scarcity <i>gallons. worldwaterday</i>	Water scarcity <i>water</i>	
	Waste and pollution <i>plastic, pollution</i>	Waste and pollution <i>waste, landfills, pesticides</i>	Waste and pollution <i>waste</i>
			Natural resources and raw materials consumption <i>manufacturing</i>
			Product opportunities <i>products</i>
		Green innovation	Green innovation
		Bio and eco technology <i>CDR (carbon dioxide removal)</i>	
			Recycling and upcycling <i>recycling, recyclable</i>
	Biodiversity protection	Biodiversity protection	Biodiversity protection
	Ecosystem preservation <i>marine</i>	Ecosystem preservation <i>conservation, conservancy, forest(s), ocean</i>	Ecosystem preservation <i>conservation, restoration, restore, forests, preserving</i>
		Animal welfare <i>pollinator</i>	Animal welfare <i>wildlife, extinction, species</i>
		Sustainable agriculture <i>agricultural, hydroponic, agribusiness(es)</i>	Sustainable agriculture <i>aeroponic, agriculture</i>

Business Sector	Owned Media Type		
	social media	website article	website copy
transport	Climate change	Climate change	Climate change
	Transport logistics, ev, cars, delivery	Transport fleet(s), jet, ev(s), hybrid, trucks, shipping, bikes, linehaul, GSE (ground support equipment), routing, plugin, flaps	Transport cars, engine(s), electric
	Gas and emissions carbon, neutral, neutrality, zero, decarbonization	Gas and emissions carbon, CO2, zero, neutrality, neutral, neutralizing, decarbonization, decarbonize, decarbonizing, scope, methane,	Gas and emissions carbon, neutrality, decarbonisation, GHG (greenhouse gas)
		Global warming climate, celsius	Global warming climate, torrential
		Deforestation deforestation	
	Environmental footprint	Environmental footprint	Environmental footprint
	Energy and renewable resources hydrogen, fuelcell, electric	Energy and renewable resources efficiency(ies), efficient battery(ies), hydrogen, feedstocks, solar, grid, biomass, biofuel(s)	Energy and renewable resources electric, hydrogen, butane, efficient
		Natural resources and raw materials consumption lithium, cobalt, minerals, mica, aluminium, nickel, copper, manufacturing, extraction, tungsten, bauxite, graphite, tyres, tantalum, adhesives, alloys, rubber, tanneries, ore, palladium, metals, leather	Natural resources and raw materials consumption manufacturing PET
		Waste and pollution packaging, packing, waste, remediation, air, plastic(s), tailings, sediments, landfill(s)	Waste and pollution waste
		Water scarcity watershed, Cantareira, reservoirs, water	
	Biodiversity protection	Biodiversity protection	Biodiversity protection
		Ecosystem preservation forests, conservation, conserve, restoring, restore, restoration, protecting, protect, trees, wetlands,	Ecosystem preservation forest(s), conservation, conserve, mangrove, coastal,

<i>Business Sector</i>	<i>Owned Media Type</i>	
	<i>social media</i>	<i>website article</i>
	<i>mangrove(s)</i>	<i>marine</i>
Sustainable agriculture <i>strawberries</i>		Sustainable agriculture <i>paddy</i>
	Green innovation	Green innovation
	Bio and eco technology <i>corrugated, riblets, winglet(s)</i>	
	Recycling and upcycling <i>circular, circularity, recycling, recycle, recycled, recyclable, recyclability, reusable, reuse, dismantling, compostable, composting</i>	Recycling and upcycling <i>recycling, recycled, remanufacturing, dismantle, dismantling, reuse</i>

Energy and renewable resources were presented in the same pattern across business sectors, that is, showing a shift from non-renewable to renewable resources. From Table 2 solar energy that is resourced from grid installation appeared as mutual renewable resources of energy across business sector. Other resources were also noticeable but sector-specific such as biomass and biofuel in transport, wind and hydrogen in computers and communication. In addition, the narration of energy use was different across business sectors. Cooling refrigerating and chilling were the prominent energy use in computer and communication; meanwhile building electricity was noticeable in financials. As in transport, it was for vehicles fuel alternatives. The lexemes of efficiency (efficient, efficiencies) are the mutual keyword across business sector, projecting the same movement towards energy efficiency in operating the business.

Water scarcity sub-content on the website of financials business sector was not as detailed as it was in computer and communication and transport. In computer and communication business sector, water replenishment was pondered as the lexemes of replenish (replenishment, replenishing) were noticeable. Transport business sector showed its contribution to solving the water system problem; meanwhile financials business sector showed actions during world water day.

Natural resources and raw materials consumption sub-content exclusively appeared on websites across business sectors. This sub-content was presented as responsible consumption of raw materials. Different business sectors need different natural resources and raw materials, especially in transport and computer and communication business sectors although some of the materials are used in both sectors. For example, transport used rubber and leather to support its product; meanwhile computer and communication business sector used limestone and timber.

Bio and eco technology sub-content was business-specific. In transport business sector, advanced features such as winglet and riblet were presented to positively contribute to the environment. In computer and communication business sector, the reliance on algae to create friendly energy was raised. In financials business sector, the commitment to support CDR (carbon dioxide removal) investment was presented. Green chemistry sub-content only appeared in computer and communication business sector. It underscored carbon-cure to mitigate the emission of carbon dioxide into the air which causes pollution.

The difference of environmental sustainability sub-contents across business sectors support Fuoli and Beelitz (2025) especially financials business sector which leaned more to alignment to sustainability partner such as aviation. The inclination is understood because financials business sector has intangible products if it is compared to computers and communication as well as transport. In this case, the latter two business sectors can induce their tangible products to perform in environmental sustainability action, making it rich in product-induced sustainability communication (Bittner-Fessler and Weicht, 2020).

4.3. Integrated Company Owned Media Strategy

As shown in Table 2, to communicate sustainability on companies' owned media, all environmental contents and sub-contents appeared in the corpus. Climate change, environmental footprint, and biodiversity protection content appeared across business sectors and owned media types; meanwhile green innovation content was found across business sectors but only on websites. Climate change has four sub-contents; they are gas and emissions, global warming, transport, and deforestation. Gas and emissions and global warming have uniform format across business sectors and owned media types, while transport is presented differently. Environmental footprint content consists of five sub-contents; they are waste and pollution, energy and renewable resources, water scarcity, natural resources and raw materials consumption, and product opportunities. Among those five sub-contents which mostly appeared in detail on website, three of them also appeared on social media although the representation on social media was more general. Biodiversity protection content consists of three sub-contents; they are ecosystem preservation, animal welfare, and sustainable agriculture. Ecosystem preservation was presented similarly across business sectors and owned media types, but animal welfare and sustainable agriculture was unique to specific business sectors. Green innovation content consists of three sub-contents; they are recycling and upcycling, bio and eco technology, and green chemistry. The first two sub-contents appeared across business sectors; while the third one was exclusively mentioned in computer and communication business sector.

The findings show that companies carefully leverage environmental sustainability information on their own media. Contents which need more explanation are distributed on website so that audience can get the full context despite navigating the contents by themselves (Askehave and Nielsen, 2005). Light contents are strategically put on social media that suit the audience characteristics to invite more conversations (Darics and Koller, 2018). Despite distributing the message to two different platforms, companies managed to have uniform messages to maintain the companies' credibility (Breeze, 2013).

For professional communication practice, the value of such a two-stage hierarchy lies in the work it performs beyond definition. Environmental issues are technical in nature, involving emissions measurement, resource use, and material flows, and they address a public that is neither expert nor obliged to read. Dividing the field into contents and sub-contents gives companies a way of breaking these issues into units small enough to be explained one at a time, so that a broad commitment such as climate change reaches the public as a set of recognisable topics rather than as a single dense statement. The same divisions help the public find what is relevant to them, since the categories are named in ordinary rather than technical terms and a visitor can therefore recognise where a topic belongs and follow it across the site without needing to know how the company is organised internally. For digital content managers, the hierarchy supplies the labels under which material is tagged and indexed, so that pages and posts published at different times

and for different purposes are held together as a topic rather than accumulating as unrelated items. Consistent labelling supports the site's own search and navigation as well as the way search engines index the material, and it makes the performance of owned media assessable, since attention can be traced by content and by sub-content and used to decide which environmental topics to develop further. Read in this way, the taxonomy is at once an analytical instrument and an operational one: it describes what companies communicate about the environment and, at the same time, provides the categories through which that communication is arranged, made findable, and evaluated. Environmental content is therefore not only about saying that a company is "green," but about showing specific environmental issues, targets, and solutions, often through issue hubs, metrics, and technical claims about environmental responsibility (Confetto and Covucci, 2021).

5. Conclusion

This study shows how three different business sectors communicated environmental sustainability on their own media. It turns out that the business sectors selectively posted environmental sub-contents to their own media types such as social media and websites. Although all environmental sustainability contents and sub-contents were present in this study, some sub-contents such as transport, waste and pollution, energy and renewable resources, water scarcity, natural resources and raw materials consumption, bio and eco technology, and green chemistry were communicated differently across business sectors depending on how their business operation impacted the environment. However, sub-contents related to gas emission, global warming, ecosystem preservation, and recycling upcycling were presented similarly pointing at one mutual goal. The message was consistent despite different owned media types although the message on social media was more general and selected. This study is significant for corporate communication division who approach environmental sustainability communication to the public. The contents and sub-contents this study found can be useful in guiding people in the division to communicate environmental sustainability on their company website. Moreover, the message distributed on social media should be integrated. By breaking environmental sustainability into contents and sub-contents, they can plan environmental sustainability communication more feasibly rather than normatively, detaching their company from greenwashing accusation. In addition, this study is beneficial for vocational students learning English for business and professional communication not only about environmental sustainability content but also language-based research through corpus-assisted content analysis.

We admit that the portion of sub-corpora in our corpus that we built is not equal. However, if we may argue, we have employed two statistical measures to mitigate the effect of keyword salience, resulting in significant and meaningful keywords for analysis. Despite that, we have yet to include dispersion as an additional statistical measure as proposed by Pollach (2012) and Gabrielatos (2018). As a result, further studies are

suggested to combine this measure in the keyword analysis to make sure that the selected keyword is not overly owned by one file in the corpus. It is also worth leveraging this study by analysing how social and governance sustainability content, as part of ESG framework that we used in this study, vary across business sectors and owned media types. As now the public has become increasingly aware about the discourse of sustainability communication, conducting corpus-based discourse studies (CADS), especially regarding labor practice as part of social sustainability, may enrich academic discussion. Doing it may help the public, who are also customers, become well-informed on the decision they make towards the commercial products and business operation.

Acknowledgement

The results presented in this article is part of research which was supported by Politeknik Negeri Malang fund (DIPA 139.03.2.693474) through annual research competition (regular scheme) year 2025 under agreement letter number 5606/PL2.1/HK/2025.

References

- Anthony, L. (2024). *AntConc* (Version 4.3.1) [Computer software]. Waseda University. <https://www.laurenceanthony.net/software>
- Ahmed, T., Maharaj, G., Saxton, G. D., Zhang, S. (2025). ESG communication tactics and reputational capital on social media. *Information* 2025, 16, 1063. <https://doi.org/10.3390/info16121063>
- Anyassari, N. F. (2025). The function of applied linguistics in business communication: benefitting from genre analysis in the digital era. *International Journal of Business English and Communication*, 3(3), 135–143.
- Anyassari, N. F., and Istifaiyah, A. I. (2025). Developing ‘ About Us ‘ and ‘ Our Products ‘ pages for SME Batik’s owned media using applied genre framework. *Journal of English in Academic and Professional Communication*, 11(1), 55–71. <https://doi.org/10.25047/jeapco.v11i1.5684>
- Askehave, I. and Nielsen, A. E. (2005). Digital genres: A challenge to traditional theory. *Information Technology and People*, 18(2), 120-141. DOI 10.1108/09593840510601504
- Bittner-Fesseler, A., and Weicht, J. F. (2020). Beyond Sustainability Communication: Sustainability-integrated Corporate Communications. *Journal of Strategic Innovation and Sustainability*, 15(1), 93–101. <https://doi.org/10.33423/jsis.v15i1.2730>
- Breeze, R. (2013). *Corporate discourse*. London: Bloomsbury.
- Charfeddine, L., and Umlai, M. (2023). ICT sector, digitization and environmental sustainability: A systematic review of the literature from 2000 to 2022. *Renewable and Sustainable Energy Reviews*, 184(June), 113482. <https://doi.org/10.1016/j.rser.2023.113482>
- Chew, R., Bollenbacher, J., Wenger, M., Speer, J., & Kim, A. (2023). *LLM-Assisted*

- Content Analysis: Using Large Language Models to Support Deductive Coding.*
<http://arxiv.org/abs/2306.14924>
- Collins, L. C. (2019). *Corpus linguistics for online communication: a guide for research.* Abingdon: Routledge.
- Confetto, M. G., and Covucci, C. (2021). A taxonomy of sustainability topics : a guide to set the corporate sustainability content on the web. *The TQM Journal*, 33(7), 106–130. <https://doi.org/10.1108/TQM-06-2020-0134>
- Darics, E. and Koller, V. (2018). *Language in business, language at work.* London: Palgrave.
- de Freitas Netto, S. V., Sobral, M. F. F., Ribeiro, A. R. B., and Soares, G. R. da L. (2020). Concepts and forms of greenwashing: a systematic review. *Environmental Sciences Europe*, 32(1), 1-12. <https://doi.org/10.1186/s12302-020-0300-3>
- Freitag, C., Berners-Lee, M., Widdicks, K., Knowles, B., Blair, G. S., & Friday, A. (2021). The real climate and transformative impact of ICT: A critique of estimates, trends, and regulations. *Patterns*, 2(9), 100340. <https://doi.org/10.1016/j.patter.2021.100340>
- Fuoli, M., and Beelitz, A. (2023). Framing the path to net zero A corpus-assisted discourse analysis of sustainability disclosures by major corporate emitters, 2011-2020. *International Journal of Corpus Linguistics*, 29(3), 361-388. <https://doi.org/10.1075/ijcl.22123.fuo>
- Fuoli, M., and Beelitz, A. (2025). Corporate buzzword or genuine commitment ? A corpus-assisted analysis of corporate ‘ net-zero ‘ pledges by major global corporations. *Applied Corpus Linguistics*, 5(3), 100142. <https://doi.org/10.1016/j.acorp.2025.100142>
- Gabrielatos, C. (2018). Keyness analysis: mature, metrics and techniques. In Taylor, C. and Marchi, A. (Eds), *Corpus Approaches to Discourse* (pp. 225-258). London: Routledge.
- Gillings, M., and Jaworska, S. (2025). How humans and machines identify discourse topics : A methodological triangulation. *Applied Corpus Linguistics*, 5(1), 100121. <https://doi.org/10.1016/j.acorp.2025.100121>
- Gonçalves, T. C., and Gaio, C. (2023). Corporate sustainability disclosure and media visibility: Mixed method evidence from the tourism sector. *Journal of Business Research*, 155(PB), 113447. <https://doi.org/10.1016/j.jbusres.2022.113447>
- Gong, Z., and Cummins, R. G. (2020). Redefining Rational and Emotional Advertising Appeals as Available Processing Resources: Toward an Information Processing Perspective. *Journal of Promotion Management*, 26(2), 277–299. <https://doi.org/10.1080/10496491.2019.1699631>
- Gray, R., Kouhy, R., and Lavers, S. (1995). Corporate social and environmental reporting A review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing & Accountability Journal*, 8(2), 47–77.
- Gutiérrez Ponce, H., Chamizo González, J. and Arimany Serrat, N. (2021). Spanish companies’ website communication of environmental, social, and governance
-

-
- information. *Communication & Society*, 34(4), 117-133.
<https://doi.org/10.15581/003.34.4.117-133>
- Han, S. (2024). Strategic Communication Regarding Philanthropic Activity by Biotechnology Firms: Integrated Approach to Sustainability and Social Responsibility. *Business Communication Research and Practice*, 7(1), 48–57.
<https://doi.org/10.22682/bcrp.2024.7.1.48>
- Herrada-Lores, S., Palazón, M., Iniesta-Bonillo, M. Á., and Estrella-Ramón, A. (2024). The communication of sustainability on social media: the role of dialogical communication. *Journal of Research in Interactive Marketing*.
<https://doi.org/10.1108/JRIM-10-2023-0372>
- Jaworska, S. (2018). Change but no climate change : discourses of climate change in corporate social responsibility reporting in the oil industry. *The International Journal of Business Communication*, 55(2), 194-219.
<https://doi.org/10.1177/2329488417753951>
- Jha, A. K., & Verma, N. K. (2024). Social Media Platforms and User Engagement: A Multi-Platform Study on One-way Firm Sustainability Communication. *Information Systems Frontiers*, 26(1), 177–194. <https://doi.org/10.1007/s10796-023-10376-8>
- Kutter, A., and Kantner, C. (2012). Corpus-Based Content Analysis : A Method for Investigating News Coverage on War and Intervention. *International Relations Online Working Paper*, 2012/01, 1–38.
- Larrinaga, C., and Bebbington, J. (2021). The pre-history of sustainability reporting : a constructivist reading. *Accounting, Auditing & Accountability Journal*, 34(9), 162–181. <https://doi.org/10.1108/AAAJ-03-2017-2872>
- Lei, N., Lu, J., Shehabi, A., and Masanet, E. (2025). The water use of data center workloads: a review and assessment of key determinants. *Resources, Conservation and Recycling*, 219, 108310. <https://doi.org/10.1016/j.resconrec.2025.108310>
- Macneil, I. (2022). From a Financial to an Entity Model of ESG. In *European Business Organization Law Review* (Vol. 23, Issue 1). Springer International Publishing.
<https://doi.org/10.1007/s40804-021-00234-y>
- O'Dwyer, B., Unerman, J., and Hession, E. (2005). User needs in sustainability reporting : Perspectives of stakeholders in Ireland. *European Accounting Review*, 14(4), 759-787. <https://doi.org/10.1080/09638180500104766>
- Pollach, I. (2012). Taming textual data : the contribution of corpus linguistics to computer-aided text analysis. *Organizational Research Methods*, 15(2) 263-287.
<https://doi.org/10.1177/1094428111417451>
- Potts, A. and Baker, P. (2012). Does semantic tagging identify cultural change in British and American English? *International Journal of Corpus Linguistics*, 17(3), 295-324. <https://doi.org/10.1075/ijcl.17.3.01pot>
- Puschmann, C. and Hagelmoser, R. (2014). Corporate blog and corporate social media. In Georgakapoulou, A. and Spilioti, T (Eds.), *The Routledge Handbook of Language and Digital Communication* (pp. 448-461). London: Routledge.
-

- Raihan, A., and Sarker, T. (2026). Financial mechanisms for advancing environmental sustainability: a comprehensive review. *Green Technology, Resilience, and Sustainability*, 6(4). <https://doi.org/10.1007/s44173-026-00029-9>
- Ranganathan, J. (2024). A commentary comparing the GHG Protocol and E-liability approaches to corporate GHG accounting and reporting. *Carbon Management*, 15(1). 1-9. <https://doi.org/10.1080/17583004.2024.2397498>
- Siano, A., Conte, F., Amabile, S., Vollero, A., and Piciocchi, P. (2016). Communicating sustainability: an operational model for evaluating corporate websites. *Sustainability* 2016, 8, 950-965. <https://doi.org/10.3390/su8090950>
- Sneideriene, A. and Legenzova, R. (2025). Uncovering greenwashing: investigating impression management gap in corporate reporting. *Sustainability* 2025, 17, 8342. <https://doi.org/10.3390/su17188342>
- Waites, S. F. (2025). Decoding ESG: Consumer Perceptions, Ethical Signals and Financial Outcomes. *Journal of Risk and Financial Management*, 18(7), 361. <https://doi.org/10.3390/jrfm18070361>
- Wei, L. (2020). Examining corporate communications of environmental responsibility on corporate websites : main themes, linguistic features, and text reuse. *Journal of Promotion Management*, 26(7), 1013–1037. <https://doi.org/10.1080/10496491.2020.1746467>
- Xiao, X., & Shailer, G. (2021). Stakeholders’ perceptions of factors affecting the credibility of sustainability reports. *The British Accounting Review*, 54(1), 101002. <https://doi.org/10.1016/j.bar.2021.101002>

Appendices

Appendix 1. Codebook of ESG contents (Environmental)

ESG	Code when	Content	Sub-content
Environmental	The main claim is about environmental performance, target, risk, or solution.	Environmental footprint	Natural resources and raw materials consumption
			Water scarcity
			Energy and renewable resources
			Waste and pollution
			Product opportunities
		Climate change	Gas and emissions
			Global warming
			Deforestation
			Transport

		Biodiversity protection	Ecosystem preservation
			Animal welfare
			Sustainable agriculture
		Green innovation	Bio and eco technology
			Green chemistry
			Recycling and upcycling

Appendix 2 LLM (Claude Opus 4.7) prompt

Role: Act as a researcher doing a keyword-led content analysis. you have expertise in applied english language, corpus linguistics, business communication. you are now researching sustainability contents on company website and social media. you use ESG (environmental, social, and governance) as the framework to categorize the content based on selected keywords.

Task: Please categorize the following words based on their association with environmental content, and environmental sub-content. If a word is too generic or doesn't fit a category, place it under "Other".

Output: Provide a tab-separated list with each word and its corresponding category (e.g., waste, environmental, environmental footprint, waste and pollution; communities, social, society, local communities; management, governance, management approach, strategy and plan). Please provide the output only in plain format, with no intermediate headings and with no response from you. I should be able to copy/paste it into an Excel document.

Environmental: The main claim is about environmental performance, target, risk, or solution.

Environmental footprint: Natural resources and raw materials consumption, Water scarcity, Energy and renewable resources, Waste and pollution, Product opportunities

Climate change: Gas and emissions, Global warming, Deforestation, Transport

Biodiversity protection: Ecosystem preservation, Animal welfare, Sustainable agriculture

Green innovation: Bio and eco technology, Green chemistry, Recycling and upcycling