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The Sustainability Commitment-Implementation Gap in Textile, Apparel, and Fashion Industries: Insights from a Sectoral Business News Coverage Perspective

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The paper examines the sustainability commitment–implementation gap in Textile, Apparel, and Fashion (TAF) industries by analyzing over 12,300 business media news articles published between 2019 and 2023. Using quantitative co-occurrence frequency metrics. We categorized communications as either forward-looking commitment announcements or retrospective result reporting across defined sustainability indicators. The findings reveal a significant imbalance: 83 % of sustainability-related coverage focused on announcing initiatives, commitments, or future targets, while only 27 % reported measurable outcomes or achievements. Specific, quantifiable metrics of environmental, economic, or social impact remained rare even within outcomes reporting. The findings suggest that sustainability communication in TAF industries remains more strongly oriented toward future sustainability commitments than toward implementation-related evidence and measurable sustainability outcomes. The study contributes to sustainability communication and organizational decoupling research by demonstrating how business media discourse may reflect imbalances between sustainability commitments and implementation-related sustainability practices in TAF industries.

Keywords: *Sustainability; Commitment-Implementation Gap; Textile, Apparel, And Fashion Industries; Content Analysis; Keywords Frequency; Keywords Co-Occurrence; Business News Analysis.*

Introduction

The textile, apparel, and fashion (TAF) industries are the third-largest manufacturing sector globally (Jia et al., 2020) and are also among the most polluting industries (Grazzini *et al.*, 2021). TAF industries consume nearly 100 million tons of non-renewable resources, 100 billion m3 of water, and emit over 1 billion tons of CO_2 annually worldwide (Saccani *et al.*, 2024). To respond to European Green Deal regulations, the Sustainable Growth Action Plan, and other industry-related mandates for certifications, standards, and social impact reporting, TAF companies should adopt (WTO, 2023).

The shift to a Circular Economy (CE) remains in its early stages, with only 8.6 % of resources currently being reused in a circular manner (Circle Economy, 2022). Many TAF suppliers in Global Value Chains (GVCs) are based in developing countries in Asia and Africa, with approximately 80 % of clothing being exported to developed nations (Guarnieri & Trojan, 2019). Not all suppliers adopt and implement sustainable practices in economic, environmental, and social aspects. Companies announce ambitious goals but struggle with implementation or measurement. Sustainability initiatives are announced, but implementation issues arise due to: a lack of baseline measurements before implementation (Luo *et al.*, 2021); limitations in consistent measurement methodologies (European Parliament, 2024, Colasante *et al.*, 2025); challenges in isolating specific impact from other factors (Herrmann & Moltesen, 2015); indirect or long-term effects that are harder to quantify (Koksal & Strahle, 2021).

Given the environmental impacts of the TAF industries, the urgency for sustainable products and business practices has never been greater (Reike *et al.*, 2022). Sustainable products minimize environmental impact, use ethical labor, address social impacts, prioritize durability, and ensure supply chain transparency (Balchin, 2023; Delogue, 2024). As consumers and regulators demand more environmentally responsible business practices and initiatives (Abdelmeguid *et al.*, 2024), which are often announced by companies, businesses in the TAF industries must not only undergo a significant transformation by striving for sustainable performance but also balance communication about sustainability initiatives and performance. Social media and business media platforms help TAF brands raise awareness of sustainability issues and the environmental impact of the industry, fostering a shift in values (Annapoorani, 2017).

Previous research analyzed social media discussions on sustainability-related issues on Twitter (rebranded as X), including topics such as sustainable fashion (Orminski *et al.*, 2021), green products and sustainable consumption (Cerasi *et al.*, 2023). Modi et al. (2021) found that both Instagram and Twitter networks showed significant interest in environmental issues, working conditions, and community support within the apparel supply chain, as explained by the moral responsibility framework of corporate sustainability. Abdelmeguid et al. (2024) examined the key drivers influencing the luxury fashion industry, as well as circular economy and sustainability trends, through LinkedIn, with a focus on the United Kingdom. Research on luxury fashion indicated that social media and business networking platforms can help brands build awareness, strengthen positioning, and

connect with potential customers (Jain *et al.*, 2021; Morra *et al.*, 2018).

Previous studies (Abdelmeguid *et al.*, 2024) revealed that even more focus is needed on the role of business platforms and social media in monitoring and gaining valuable insights into circularity within the TAF industries and sustainability trends. However, existing research has predominantly focused on social media platforms such as Twitter, Instagram, and LinkedIn (Orminski *et al.*, 2021; Modi *et al.*, 2021; Abdelmeguid *et al.*, 2024), while business news media channels, which serve as independent observers of corporate sustainability activities, remain largely unexplored. The review of previous research confirms that the scientific literature lacks empirical analysis of sustainability initiatives and performance representation in the business news coverage.

At the same time, previous sustainability literature increasingly highlights concerns regarding discrepancies between publicly communicated sustainability commitments and implementation-related outcomes in TAF industries. Existing studies discuss these discrepancies through concepts such as organizational decoupling, symbolic sustainability communication, and greenwashing risks (Bromley & Powell, 2012; De Freitas Netto *et al.*, 2020; Pizzetti *et al.*, 2021; Nemes *et al.*, 2024). Nevertheless, limited empirical attention has been devoted to examining how such commitment–implementation dynamics are represented in sectoral business news discourse.

This gap is particularly significant because, unlike corporate-controlled communications or social media discussions, business media provides third-party documentation of both corporate announcements and actual implementation outcomes, offering a more objective lens for examining whether sustainability communication in TAF industries is predominantly oriented toward future sustainability commitments or supported by implementation-related evidence and measurable sustainability outcomes. Thus, this study addresses a methodological void by introducing business media content analysis as a novel approach to examining sustainability discourse in TAF industries. This leads to the following research question: What is the balance between sustainability commitment announcements and implementation results or outcomes presentation in public business media channels?

This research aims to analyze the sustainability commitment–implementation gap in TAF industries by examining how sustainability commitments and implementation-related outcomes are represented in sectoral business media discourse. Therefore, by analyzing sustainability topic-related communication on selected business media channels, this paper adopts a Triple Bottom Line (TBL) perspective – encompassing economic, environmental, and social dimensions – as it provides a comprehensive framework for examining the TAF industries' performance indicators in the context of economic, environmental, and social sustainability domains.

This study contributes to the existing literature on sustainability communication and implementation in the TAF industries by introducing business media analysis, specifically word association (co-occurrences) analysis, as an alternative method for examining sustainability-related business practices and their public representation. The study contributes to understanding how sustainability commitment–implementation dynamics are reflected in sectoral business media discourse and how these dynamics relate to broader sustainability transition and organizational transformation processes within TAF industries. The study contributes by providing recommendations for businesses and policymakers, by identifying specific areas for balancing publicly communicated sustainability commitments with implementation-related sustainability evidence and outcomes representation. This analysis helps reveal challenges associated with translating sustainability commitments into measurable outcomes representation, thereby informing both policy discussions and managerial decision-making in TAF industries.

Literature Review

Reviewing the literature, first, we examine sustainability challenges in TAF industries and the theoretical frameworks guiding organizational responses, establishing the context for sustainability commitments. Second, we analyze sustainability performance indicators, which represent the metrics organizations are expected to use to both announce commitments and report outcomes. Third, we establish business media as an independent lens for observing organizational practices. Unlike corporate self-reporting, business media provides third-party documentation of both organizational promises and achievements, enabling detection of potential decoupling between commitments and implementation. This progression moves from normative frameworks (what should be done) to empirical observation (what is being communicated and publicly represented), establishing the foundation for our quantitative content analysis.

Approaching Sustainability Challenges in TAF Industries

The TAF industries' shift toward sustainability relies on a theoretical TBL framework. The framework was proposed by Elkington (1998); it evaluates the success of business companies by balancing economic, social, and environmental performance, emphasizing that profitability must align with social and environmental responsibilities (Park and Kim, 2016).

Sustainability has emerged as a key priority, with the TBL framework providing strategic guidance for achieving it. The TBL's positive influence on competitiveness has gained managerial backing, as its practices drive economic growth and strengthen competitive advantages (Milne *et al.*, 2013; Yun *et al.*, 2019). Additionally, effective planning enhances organizational efficiency and success, aligning corporate decisions with profit maximization goals and performance indicators. This approach helps businesses integrate and track sustainability efforts, showcasing their commitment over time (Rosario *et al.*, 2024; Abdelmeguid *et al.*, 2024).

TAF industries face several challenges including ecological, economic, and social. According to a report by WTO (2018), an increasing number of business firms in TAF industries are opting for more sustainable materials. On the other hand, only a third of organizations have assessed the environmental impact of the materials they use and are investing in sustainable and high-quality materials, production, and design. The impact of the clothing industry on environmental well-being is significant, accounting for 10 % of global pollution (Sanders & Mawson, 2019).

The WTO (2018) report indicates that up to 20,000 liters of water are needed to produce one kilogram of cotton, and the production of a single T-shirt consumes up to 2,700 liters of water. Society consumes 800 billion new garments annually. According to Sanders and Mawson (2019), Australians currently discard 6,000 kg of clothing and textile waste every ten minutes, with a significant portion ending up in landfills. Environmental damage disproportionately affects vulnerable and financially unstable individuals, while the impact of landfills, water pollution, and poor chemical management affects the health and well-being of workers throughout the entire clothing supply chain.

Thus, the priority should be the recycling process and the circular business model, which separates economic growth from environmental losses and resource depletion, promoting the reuse and recycling of textiles instead of their disposal (Bukhari *et al.*, 2018).

Previous research highlights practices for transitioning textile supply chains to a circular economy (Kohler *et al.*, 2021; Sandvik & Stubbs, 2019). Key actions include redesigning textile products, adopting new business models, shifting consumption behaviours, and improving supply chain management (Bressanelli *et al.*, 2021). Circular product design, emphasizing durability, reparability, and recyclability from the start, extends apparel lifespan and enhances reuse and recycling potential (Konietzko *et al.*, 2020).

Consumers also play a crucial role in advancing sustainability practices in TAF industries. Sandvik & Stubbs (2019) and Todeschini et al. (2017) identified increased customer awareness of sustainability and green products as key to alternatives to fast fashion. Stal & Corvellec (2018) highlighted the importance of involving consumers in circular business models, particularly in used clothing collection. Effective textile supply chain management should also incorporate reverse logistics to facilitate garment reuse and recycling, reducing reliance on virgin fibers and minimizing textile waste.

Nevertheless, despite the growing attention to circular economy practices, sustainable consumption, and sustainability-oriented supply chain management approaches, previous research indicates that implementation across TAF industries remains uneven and frequently fragmented. The complexity of global textile supply chains, economic pressures associated with fast fashion business models, and difficulties in verifying sustainability performance across multiple production tiers often constrain the practical implementation of publicly communicated sustainability commitments (Nemes *et al.*, 2024). Consequently, sustainability communication in TAF industries may increasingly emphasize aspirational goals, partnerships, and sustainability commitments, while measurable implementation outcomes and operational transformations remain less visible. This creates conditions for a potential gap between sustainability commitments and implementation practices, particularly within public sustainability communication and business media discourse.

Sustainability Performance Indicators in the TAF Industries

Given the potential discrepancy between sustainability commitments and actual implementation practices, the assessment of measurable sustainability performance becomes particularly important in TAF industries. Various indicators can be applied to measure sustainability in TAF industries. Usually, the measurements cover the entire product production cycle, starting with the extraction of raw materials and ending with product disposal. This tool is called Life Cycle Assessment (LCA), which requires careful data collection and reporting at each stage of the product's production cycle (Herrmann & Moltesen, 2015), when the production cycle must meet regulatory requirements for textile industry companies. LCA is mostly environmental-social focused and economic dimension is fragmented (Tolentino-Zondervan & DiVito, 2024), when in business companies it must be as important as other dimensions. Moreover, implementing LCA is challenging, especially due to extensive supply chains and a lack of data from textile and apparel producers in developing countries (Luo *et al.*, 2021).

Another tool that is mostly used by business companies is Triple Bottom Line (TBL), which, as described above, clearly distinguishes three elements of sustainability that must be balanced: economic, social and environmental. Therefore, it will be used as a theoretical basis in our study.

Table 1 presents sustainability indicators in the TAF industries based on the TBL model, adapted from the Tolentino-Zondervan and DiVito (2024) research. Environmental factors include carbon, water, and chemical footprints, energy use, sustainable materials, waste reduction, and packaging (Lee, 2017). Social indicators cover responsible sourcing, safe working conditions, fair labor, and gender equality (Annapoorani, 2017). Economic indicators focus on product quality, resource efficiency, waste reduction, supply chain efficiency, and customer experience (Broega *et al.*, 2017; Erdil & Tacgın, 2018).

These indicators serve as internal KPIs for business companies and are used in certifications like Global Organic Textile Standard (GOTs), Cradle-to-Cradle (C2C) certifications, Fair Trade Max Havelaar, ISO 14001, and OEKO-TEX to assess sustainability performance (Tolentino-Zondervan & DiVito, 2024).

While standardized sustainability indicators and reporting frameworks exist, preliminary observations suggest that these metrics are predominantly employed to communicate future commitments and initiatives rather than actual sustainability implementation outcomes. A study conducted by Ruiz del Olmo and Carballeda Camacho (2024) found that the main focus of sustainability communication in the fashion industry is often linked to the promotional strategies of brands, rather than actual results, outcomes, or impacts. This asymmetry in communication may indicate limitations in the actual progress of corporate sustainability efforts.

Table 1

Systematization of Sustainability Performance Indicators in the TAF Industry Adopted from Tolentino–Zondervan and DiVito (2024)

Sustainability factors	Performance indicators in TAF industries	Implementation phase in product life cycle
Environmental		
Carbon footprint	GHG emission (e.g. solar fuels, CO2, etc.)	Sourcing; Production; Logistics and Distribution; Retailing; Reverse logistics
Water footprint	Reduce water use or consumption; Reduce water pollution; Reduce water degradation (eutrophication, acidification, ecotoxicity); Use of waterless dying	Sourcing; Production; Logistics and Distribution
Chemical footprint	Reduce of chemical substances; No harmful pesticides or fertilizers used; Have a restricted substance list; Use of low-impact dye; VOC (volatile organic compounds) reduction; Phasing out PVCs (polyvinyl chloride); Air dying technology; Zero Discharge of Hazardous Materials; Have requirements for silica levels	Production
Energy consumption or use in manufacturing	Reduce use of electricity; Use of green energy	Production; Logistics and Distribution; Retailing; Reverse logistics
Use of sustainable materials	Use of recycled materials; Use alternative to conventional cotton; Use of organic materials; Use recycled polyester; Use of natural fibers (e.g. bamboo, hemp); Use environmentally preferred rubber; Use of modified regenerated cellulose fibers; Use other environmentally preferred materials (bio-based or natural products)	Sourcing; Production; Retailing; Reverse logistics
Waste reduction	Use natural waste products; Use second-hand materials; Recirculating products through second hand items	Sourcing; Production; Retailing; Reverse logistics
Eco friendly alternatives to manufacturing processes	Air dyeing; Less water wet finishing; Laser bleaching and washing; Ozone bleaching and finishing; Digital printing	Production
Packaging operation	Have a packaging reduction target; Use of sustainable packaging	Sourcing; Production; Logistics and Distribution; Retailing; Reverse Logistics
Social		
Responsible sourcing	Code of Conduct for suppliers; Use a supplier ranking system; Perform unannounced audits on suppliers; Encourage Environmental Management System (EMS) implementation amongst suppliers; Sandblasting ban for denim products;	Sourcing; Production
Safe and healthy working conditions	No child labour; No mechanical – cotton dust compliance (OSHA cotton standards); No human trafficking	Sourcing; Production
Fair labour	Member of International Labour Organization (ILO); Member of Fair Factories Clearinghouse (FFC) Fair Labour; Member of Fair Labour Association	Sourcing; Production; Distribution and Logistics
Diversity and inclusion	Gender Equality; No discrimination; Leadership Diversity	Sourcing; Production; Distribution and Logistics; Retailing; Reverse Logistics
Economic		
Product quality	Long lasting products (against color and shrinkage)	Sourcing; Production; Retailing
Optimal use of resources	Predictability of supply and inventories; No waste in production	Sourcing; Production; Retailing; Reverse Logistics
Chain efficiency	Transparent and traceable products (material certification, provenance of products, environmental and social commitments, etc.)	Sourcing; Production; Logistics and Distribution; Retailing; Reverse Logistics
Positive customer experience	Product durability; Service levels; Fair pricing	Logistics & Distribution; Retailing

Understanding this communication imbalance is crucial as it affects stakeholders' ability to evaluate organizational sustainability performance and may influence the overall credibility of corporate sustainability efforts. On the other hand, the tendency to favor commitment over implementation in communication may signal about limitations of the established indicators and overall approach to the sustainability phenomenon.

Business Media as a Lens for Observing Organizational Sustainability Practices

The internal sustainability challenges described above create organizational conditions in which decoupling between formal sustainability commitments and actual implementation practices is likely to emerge. When genuine implementation progress is constrained, external sustainability communication may increasingly take on a symbolic

character, a pattern that organizations would be unlikely to acknowledge in their own controlled communications.

Business media serves as an independent observatory of corporate sustainability activities, providing external documentation of organizational behavior that extends beyond self-reported corporate communications. While organizational decoupling – the gap between formal policies and actual practices – is well-documented across organizational contexts (Bromley & Powell, 2012), business media coverage may help in detecting and specifying such disconnects. Unlike corporate sustainability reports or official communications controlled by organizations themselves, business media operates as a third-party observer that documents both what companies announce and what they achieve.

In sustainability contexts, decoupling can manifest as symbolic actions that signal environmental compliance without substantive organizational change (Stal & Corvellec, 2022). Business media, by reporting on industry developments from an external perspective, captures the full spectrum of sustainability-related events from initial announcements and commitments to actual implementations and measured outcomes. This makes business media coverage a valuable proxy for understanding the actual state of sustainability practices in industries.

Recent sustainability communication research suggests that public corporate sustainability discourse frequently prioritizes future-oriented commitments, aspirations, initiatives and sustainability narratives, while measurable implementation outcomes and operational sustainability impacts receive comparatively less visibility (Pizzetti *et al.,* 2021; Nemes *et al.,* 2024). Such tendencies are particularly relevant in TAF industries, where reputational pressures, supply chain complexity, and greenwashing risks may contribute to discrepancies between publicly communicated sustainability intentions and implementation-related outcomes (De Freitas Netto *et al.,* 2020; Szabo & Webster, 2021).

Business media coverage of sustainability activities reflects the temporal nature of organizational initiatives. By analyzing patterns in this coverage, researchers can identify whether the industry discourse is primarily oriented toward future intentions or past achievements. Forward-looking coverage documents organizational announcements of future intentions, planned initiatives, and strategic commitments. When stakeholders lobby firms to adopt sustainability initiatives (Adomako et al., 2022), business media typically reports these developments using specific linguistic patterns. Organizations establish time-bound sustainability goals that become newsworthy events, generating media coverage that includes: intentions defined by terms "intend," "expect," "aim," "prepare"; as well as planning markers such as "plan," "roadmap," "schedule," "upcoming"; or strategic announcements like "initiative," "project," "target," "goal," "objective," "commitment"; or launch events referred by keywords "launch," "introduce," "establish," "announce," "propose," "initiate".

Retrospective coverage, conversely, documents completed actions, verified outcomes, and measured results. When organizations demonstrate transparency about actual results, business media reports these developments using another set of linguistic markers: achievement documentation referred by words: "achieve," "reach," "complete," "finish"; evidence reporting might be marked with words "prove," "record," "quantity," "track"; outcome documentation, including words: "result," "outcome," "deliver," "realize"; indication of progress, like "improvement", "implement." As the performance-defining keywords ("decline," "decrease," "drop," "fall," "rise," "increase," "grow") may be mentioned both with commitment and implementation statements, we shell consider them separately.

The distribution of forward-looking versus retrospective coverage in business media provides insight into the actual state of sustainability practices within industries. If organizations genuinely practice what they announce, business media coverage should demonstrate alignment and balance between sustainability claims and documented actions (Bromley & Powell, 2012). When there is misalignment between stated intentions and documented actions, it can indicate organizational challenges in sustainability implementation (Ajayi & Mmutle, 2021). Business media exposure of gaps between symbolic and substantive actions can reveal patterns of industry behavior that might not be apparent from corporate self-reporting.

This research adopts a conceptual perspective, asserting that analyzing business media coverage is a reliable method to assess the state of sustainability practices in TAF industries. Unlike corporate sustainability reports, which organizations control and curate, business media provides an independent record of industry activities. The temporal distribution of this coverage – whether it predominantly documents future commitments or past achievements – offers empirical evidence about the actual progression of sustainability initiatives in the sector.

This approach treats business media not as a corporate communication tool, but as an independent observer whose coverage patterns reveal underlying industry realities. A systematic imbalance toward commitment-oriented coverage may indicate industry-wide challenges in moving from sustainability intention to implementation, which make outcomes less reportable, or structural barriers in achieving announced sustainability goals.

Data and Research Methodology

The analysis is guided by the distinction between sustainability commitment-oriented communication and implementation-oriented sustainability outcomes represented in media discourse. The research data is a text corpus composed of sectoral business media news coverage published over the year 2019–2023. A short description of the data sources and volumes of collected data is given in Table 2. Approximately 12 300 news publications were collected.

The identification of appropriate business media sources for this study began with a systematic internet search for TAF industry-specialized publications with sustainability-focused content. Candidate sources were identified through search queries combining terms such as "textile," "apparel," "fashion," "business news," and "sustainability." The initial search yielded numerous potential sources, which were then systematically evaluated against established content analysis sampling principles:

• Domain Specificity and Focus: All selected sources meet the primary criterion of TAF industry specialization with dedicated sustainability coverage (Krippendorff, 2013). The sources were selected to represent different

segments of the TAF value chain – from manufacturing (Textile Focus, Fibre2Fashion) to technical innovation (Textile World) to consumer-facing fashion (Fashion Network, Fashion United) – ensuring comprehensive industry representation.

• Geographic Diversity: Sources were selected to capture sustainability discourse across major TAF production and consumption regions: Asia (manufacturing focus), Europe (sustainability leadership and consumption focus), and global perspectives.

• Accessibility and Technical Feasibility: All sources met the critical requirement of open public access and technical suitability for automated data collection. As Kim et al. (2018) emphasize, technical accessibility is essential for replicability and systematic data capture in digital content analysis.

• Source Credibility and Authority: Following Heuer et al. (2024), source credibility was assessed through establishment dates, industry recognition, and professional editorial standards. All selected sources demonstrate substantial industry authority, with publication histories enhancing the reliability of the corpus.

• Content Volume and Representativeness: The total corpus of 12,361 articles with 128,181 paragraphs exceeds minimum sample size requirements for quantitative content analysis (Kim et al., 2018), ensuring sufficient representativeness for detecting patterns in commitment versus implementation news character.

Table 2

Data Sources and Volumes of Collected Data

Link to the data source, either a predefined sustainability news category or respective search results pages	Geographic coverage	Value chain segment-related character of coverage	Number of collected news	Number of text paragraphs
Fashion Network: https://ww.fashionnetwork.com/search/news/sustainability.html	Global	Retail & Distribution	3074	30708
Textile World: https://www.textileworld.com/category/textile-world/sustainability/	Global, US-centric	Innovation & Technology	1111	10640
Textile Focus: https://textilefocus.com/?s=sustainability/	Bangladesh, South Asia	Manufacturing & Production	1217	11127
Fibre2Fashion, Apparel: https://www.fibre2fashion.com/news/apparel-sustainability-news	India, Vietnam	Raw Materials & Sourcing	857	8394
Fibre2Fashion, Textile: https://www.fibre2fashion.com/news/sustainability-news			1391	
Apparel Resources: https://apparelresources.com/ business-news/sustainability/			197	
Textile Network: https://textile-network.com/en/search/(offset)/?SearchText=sustainability	Europe, Germany	Brands & Marketing	394	67312
Fashon United: https://fashionunited.com/search ?keywords=sustainability&sort=CREATED_AT			4120	

It should be noted that the geographic and value chain segment associations assigned to the selected business media sources (Table 2) are illustrative rather than definitive. In practice, business media coverage often transcends these categorical boundaries, with publications addressing multiple value chain segments and geographic markets simultaneously. For instance, while Fashion Network is characterized as focusing on retail and distribution, its coverage occasionally extends to manufacturing partnerships or supply chain developments. Similarly, manufacturing-focused outlets may report on retail trends or brand strategies when relevant to their audience. This mixed character of actual coverage is an inherent feature of industry-specialized business media, which must address the interconnected nature of global value chains.

The collected dataset exhibits an imbalance in terms of value chain segment representation (Table 2). The most extensively represented segment is retail and distribution, while the least represented is raw materials and sourcing. This distribution pattern may reflect the buyer-driven character of TAF industries' global value chains. In buyer-driven value chains, profitability derives from high-value research, design, sales, and marketing activities, with lead firms – retailers, branded marketers, and designers – controlling the chain while outsourcing physical production. Consequently, sectoral business media coverage naturally gravitates toward these economically and strategically dominant downstream segments, where major brand announcements, retail developments, and sustainability initiatives generate more newsworthy content.

Given the imbalanced distribution across value chain segments and the mixed nature of actual media coverage, the analysis was conducted on a combined dataset aggregating all collected data (12,361 articles; 128,181 paragraphs). This aggregation approach offers several methodological advantages. First, it eliminates potential biases that might arise from overrepresenting specific value chain segments or geographic regions in the analysis. Second, it provides a comprehensive view of sustainability discourse across the entire TAF industries ecosystem, capturing how sustainability themes are represented regardless of value chain segments.

However, this aggregation approach also introduces several limitations that must be acknowledged and considered. First, the combining of data sources with substantially different content volumes means that sources with larger article counts exert disproportionate influence on the overall findings. The downstream segments (retail, distribution, branding) are consequently overrepresented in the aggregated dataset, potentially biasing results toward characteristics of these segments rather than upstream manufacturing or sourcing activities.

Second, the aggregation obscures potential systematic differences in how sustainability is represented by media across different value chain segments. By combining all sources, we cannot detect whether the commitment-implementation gap varies systematically across the value chain.

Third, geographic concentration in certain sources may introduce regional biases, as sustainability communication practices and regulatory environments differ substantially across global regions. By treating all articles equally regardless of source, we cannot account for potential differences in source credibility, industry influence, or readership reach, factors that may affect both what gets reported and how it gets interpreted by industry stakeholders.

Despite these potential limitations, the aggregated approach remains methodologically sound for this study's objectives. The preliminary source characterizations presented in Table 2 are indicative rather than determinative – individual publications within any given source routinely address multiple value chain segments simultaneously. Accurate assignment of each article to specific value chain segments would require granular content analysis at the article level, which exceeds the scope of this research focused on industry-wide commitment-implementation patterns.

Therefore, the aggregated dataset approach allows us to capture overall sustainability discourse patterns across the TAF industry ecosystem without introducing classification errors from imprecise source-level categorization. Stratified analyses by value chain segment or geographic region could yield a more nuanced understanding of how sustainability communication varies across different industry contexts, which is noteworthy path of research development and extension.

It should be acknowledged that business media coverage might be inherently selective in nature. Editorial decisions regarding newsworthiness, audience orientation, and source accessibility mean that not all sustainability-related organizational activities receive equal media attention (Oliver *et al.*, 2023)

To discover the most frequent phrases the collected data corpus was processed using the KH Coder software (Koichi, 2016, 2017). Nouns, proper nouns, adjectives, adverbs, and verbs were tagged for text processing. The POS (part of speech) tagging was done using KH Coder software (https://khcoder.net/en/) by applying the Stanford POS tagger. Word cluster analysis was undertaken to find the most frequent noun phrases. The KH Coder's automatic phrase extraction function uses TermExtract, an automatic technical term (keyword) extraction system published by the Nakagawa Laboratory of the Digital Library Division, Information Technology Center of The University of Tokyo (Koichi, 2016, 2017). This function in KH Coder software finds only compounds of two or more words. The list of the most frequent phrases serves as the empirical background in creating dictionary of relevant sustainability indicators for further data processing. To those mentioned by Tolentino-Zondervan and DiVito (2024) we added 10 more additional sustainability indicators, picking them from the list of the most frequent word combinations: i.e. carbon emissions, carbon footprint, greenhouse gas emissions, co2 emissions, water consumption, renewable energy, energy efficiency, plastic waste, textile waste, recycled materials. All further data coding and analysis were done in MaxQDA software.

To proceed with the quantitative content analysis, a comprehensive keywords dictionary was developed. This dictionary incorporated the sustainability indicators framework presented by Tolentino-Zondervan and DiVito (2024), which was subsequently expanded to include additional indicators derived from the most frequently occurring terms in the corpus.

Beyond sustainability indicators, the keywords dictionary encompassed three distinct groups of indicaors' mentioning context-defining terms designed to capture the temporal and performative dimensions of sustainability discourse (further in the analyses we shell refer to these as context keywords): 1) commitment-related keywords – terms signaling future-oriented pledges and intentions regarding sustainability initiatives (e.g., "plan," "target," "commitment," "goal", etc.); 2) implementation-related keywords – terms indicating actual results, completed actions, and realized outcomes associated with sustainability indicators (e.g., "achieve," "deliver," "result," "implement", etc.); and 3) performance indicating keywords – terms denoting measurable change or performance trajectories of sustainability indicators (e.g., "increase," "decrease," "improve," "reduce", etc.). This tripartite dictionary system enables systematic identification of whether business media coverage emphasizes forward-looking commitments or retrospective implementation outcomes when publishing about sustainability issues, challenges, decisions and other evidence in TAF industries.

Based on the predefined keywords dictionary, the research was done in these steps:

1. Search and automated coding of paragraphs that contain defined keywords. The number of coded text segments (paragraphs) is shown in Figures 1-4.

2. The initial review and analysis of the frequency of the coded segments.

3. The count of paragraphs that contain co-occurring sustainability indicators and context-defining keywords in commitment, implementation, and/or indicators performance keyword groups. The count numbers are provided Appendixes A-C.

4. Analysis of the proportional distribution of sustainability indicators co-occurring within the same paragraph together with context-defining keywords across three dimensions:

a. If the sustainability indicators occur more frequently together with the sustainability commitments defining keywords, we shall conclude that news coverage and respective practice in TAF industries are biased to commitment emphases;

b. On the other hand, if the sustainability indicators occur more frequently together with the sustainability implementation results and actions defining keywords, we shall conclude that news coverage and respective practice in TAF industries are biased to implementation emphases.

c. Finally, the count of the sustainability indicators' co-occurrence with performance-defining indicators' context keywords will indicate how much the proposed sustainability indicators are used to define and measure sustainability performance, either from a commitment or implementation perspective.

Results

The comparison of sustainability indicators listed in Table 1 and frequency counts depicted in Figure 1 indicates that not all terms mentioned by Tolentino-Zondervan & DiVito (2024) as proposed measurable sustainability indicators were found in the collected texts. In the broadest environmental indicators group, the following sustainability indicators were not mentioned in the collected texts, or were mentioned only randomly several times: water degradation, waterless dying, harmful pesticides and fertilizers, low-impact dye, volatile organic compounds, polyvinyl chloride, air dying, hazardous materials, and many others.

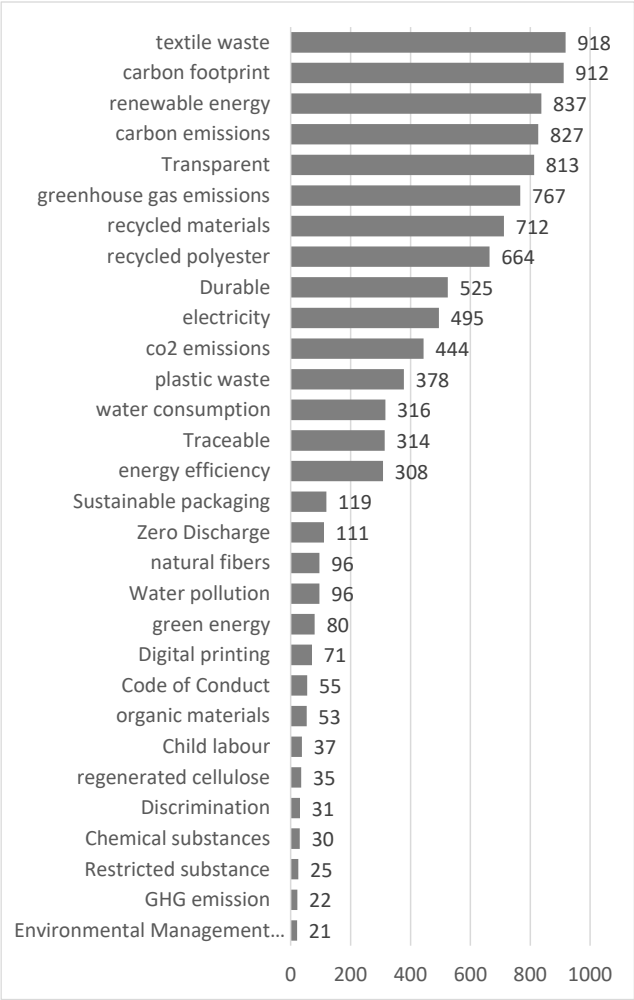


Figure 1. The Count of Paragraphs Mentioning Sustainability Indicators

This finding is noteworthy because it reveals a substantial gap between the conceptual frameworks developed in the academic literature and the actual terminology employed in business practice and the media. Although scholars have systematically identified and proposed comprehensive sets of sustainability indicators based on theoretical frameworks and technical assessments, many of these indicators appear to be absent or marginal in the operational discourse of the TAF industries. This disconnect suggests that either these academically defined indicators have not been adopted by industry practitioners or the metrics themselves may not align with the practical realities and priorities of business operations.

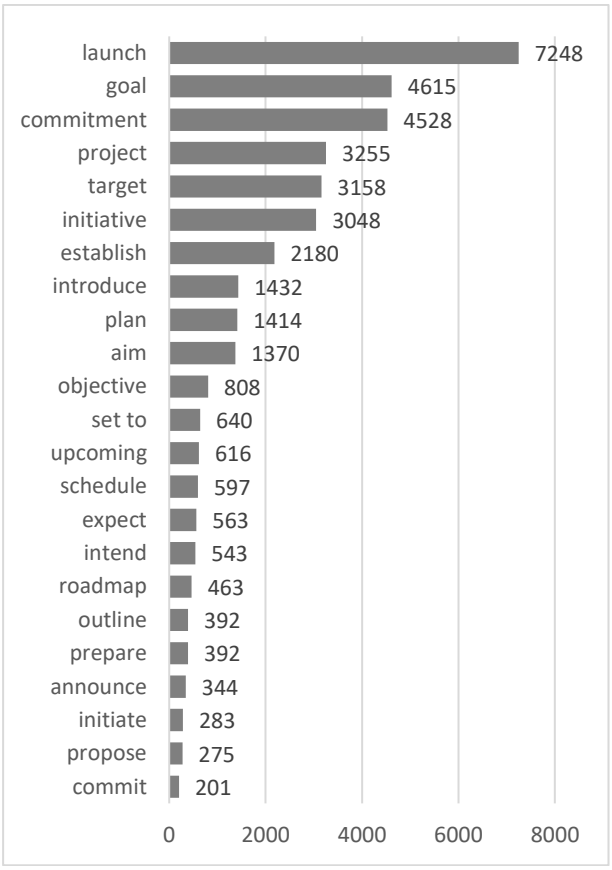


Figure 2. The Count of Paragraphs Mentioning Sustainability Commitment Context Keywords

The absence of specific technical terms – particularly those related to chemical management, water treatment technologies, and process-specific environmental interventions – in business media coverage may indicate that these aspects are either underdeveloped in actual sustainability initiatives or are not communicated to external stakeholders. This divergence between scientific discourse and business practice raises important questions (worthy of attention and further research) about the applicability and relevance of academically proposed sustainability measurement frameworks in real-world industrial contexts.

We could also not say that the indicators associated with any particular phase of the value chain dominate (Table 1 and Figure 2). The entire product life cycle is covered from different perspectives.

Only three sustainability indicators (traceable, transparent, and durable) were found relevant and mentioned in the considered business media news coverage from the economic indicators group. Only four out of fourteen social sustainability indicators defined by Tolentino-Zondervan and DiVito (2024) are observed in sustainability topic-related news coverage (code of conduct, suppliers' environmental management system, child labor, and discrimination). The frequency count of social sustainability indicators also is rather small, which further supports the above-stated observation regarding the gap between academically proposed indicators and their adoption in business practice.



Figure 3. The Count of Paragraphs Mentioning Sustainability Implementation Context Keywords

The summary of the frequency analysis of keywords provided in Figures 2, 3, and 4 reveals a pronounced dominance of terms related to commitment, particularly "launch," which far exceeds the counts of any other keyword. This suggests that sustainability communication in business media is strongly orientated toward announcing new initiatives rather than reporting progress or results. Although implementation-related keywords such as "complete," "achieve," and "result" appear in sectoral news coverage, their total counts remain comparatively low. It should be taken into account that these terms may also occasionally be used in early project phases or in aspirational contexts, but their limited frequency indicates that concrete evidence of completed actions is rarely emphasized. Taken together, these results reinforce and support the conclusion that sustainability discourse is predominantly declarative – focused on signaling intentions and strategic direction – rather than demonstrative, filled with measurable implementation or performance outcome evidence.

In addition, we examine the balance between commitment and implementation representations in greater detail to assess whether the observed emphasis on commitment represents a systemic communication bias and mirrors actual industry practices. Figure 5 (and data Table in Appendix D) indicates proportions in percentage values of the counts of sustainability indicators co-occurrence in the same paragraph together with the sustainability commitment, sustainability implementation, and indicators' performance context defining keywords.

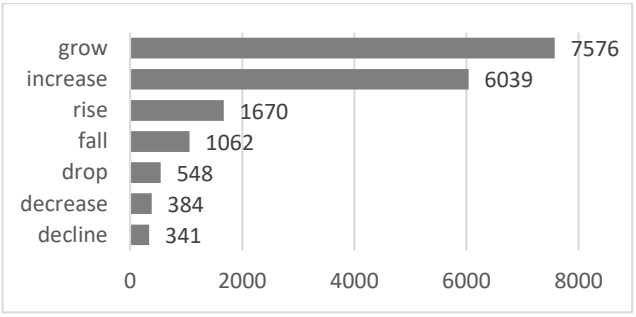


Figure 4. The Frequency of Paragraphs Mentioning Sustainability Indicators Performance Context Keywords

The co-occurrence count totals in percentage values exceeding 100% indicate that the same sustainability indicator is mentioned with the keywords belonging to different context keyword groups or together with several context keywords from the same group; which results in co-occurrence counts exceeding absolute frequency counts.

The detailed co-occurrence analysis underlying the findings presented in Figure 5 is provided in Appendices A, B, and C. These appendices present comprehensive co-occurrence count matrices showing the frequency with which sustainability indicators appear in the same paragraph alongside commitment-related keywords (Appendix C), implementation-related keywords (Appendix B), and indicator performance keywords (Appendix A). Each matrix displays the absolute count of paragraphs where specific sustainability indicators co-occur with individual context-defining keywords, enabling examination of the specific linguistic patterns that characterize sustainability discourse in the sectoral business media. For instance, Appendix C reveals which commitment-oriented terms (e.g., "launch," "goal," "target," etc.) most frequently accompany particular sustainability indicators, while Appendix B shows the distribution of implementation-focused terms (e.g., "achieve," "complete," "implement," etc.) across the same indicators. The SUM columns in each matrix aggregate total co-occurrences for each sustainability indicator across all context keywords within that category, while the percentage values indicate the proportion of an indicator's total mentions that co-occur with the respective keyword group. These matrices provide the detailed empirical foundation for assessing the commitment-implementation balance in TAF industry sustainability communication in the global sectoral business news coverage.

The average percentage values (see Table in Appendix D) of co-occurrences that include sustainability indicators and commitment representing keywords (83.04 %) significantly exceed co-occurrences that include implementation keywords (27.97 %). This aligns with the proposition, stating that the global sectoral business media news coverage, informing about sustainability developments in TAF industries, prefers highlighting corporate commitment toward sustainability rather than actual actions (implementation, results, and outcomes).

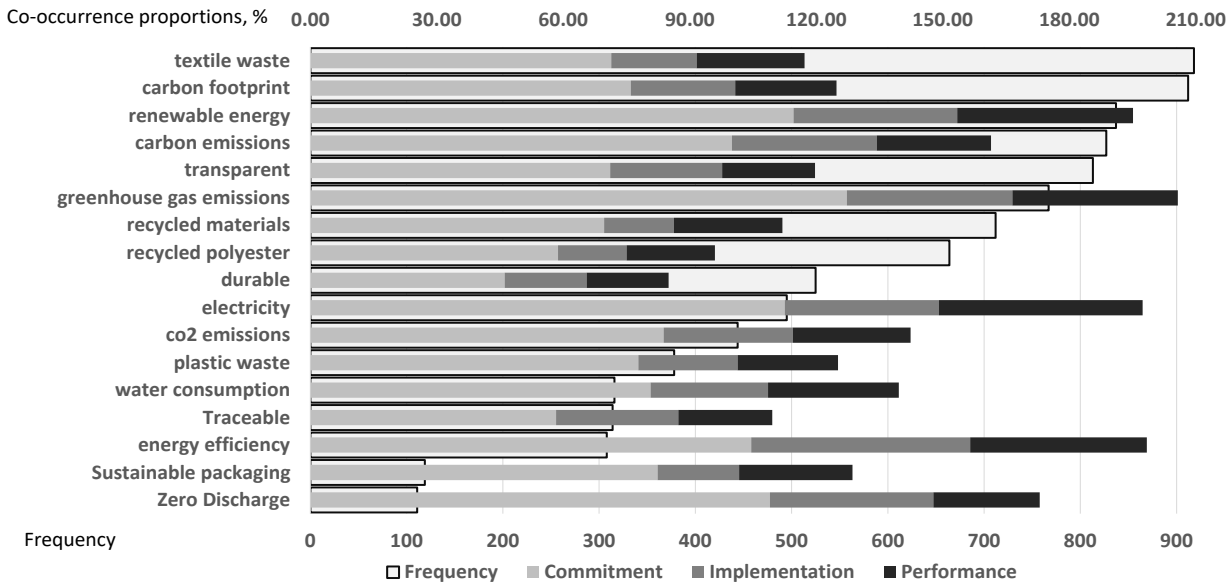


Figure 5. The Frequency of Sustainability Indicators and Percentage Values (Relative to the indicator mention frequency) of the Sustainability Indicators' Co-Occurrence in the Same Paragraph Together with the Context Keywords of Different Categories

Figure 5 reveals three distinct global sectoral business media news coverage patterns in the sustainability commitment-implementation and performance perspective.

First, climate-related indicators (greenhouse gas emissions, renewable energy, electricity, energy efficiency) demonstrate the most pronounced imbalance, with commitment-focused coverage exceeding 100 % of the indicator's mentioning count, while sustainability implementation focus remains below 40 % (for detailed indicators co-occurrence count numbers and percentage values see Appendices A, B, C, and D). Appendix C reveals that the keywords co-occurring the most often are "commitment," "goal," and "target." We should be aware and understand that the same indicators might be used in communication about results and outcomes, but then the co-occurrence with the implementation group keywords should be at a comparable level. The performance co-occurrence rates (39-48 %) for these indicators suggest that they are frequently discussed with quantitative metrics, yet this measurement intensity does not translate into proportional outcome reporting.

Second, certain technical indicators show relatively balanced presentation in the global sectoral business news coverage. Energy efficiency exhibits the highest implementation coverage rate (52 % of the indicator mentions co-occur with the implementation context keywords), potentially reflecting more mature measurement systems or clearer causal attribution. Environmental management systems similarly show comparatively higher implementation communication (48%), possibly due to certification-based verification that provides reportable outcomes.

Third, social sustainability indicators demonstrate minimal visibility across all considered context categories. Child labour (27 % commitment, 14 % implementation) and discrimination (48 % commitment, 16 % implementation) receive substantially less coverage than environmental indicators, suggesting systematic underrepresentation of social dimensions in TAF industry sustainability discourse. This finding aligns with prior research indicating the fragmented treatment of economic and social dimensions in sustainability assessment frameworks (Tolentino-Zondervan & DiVito, 2024).

The average percentage value of co-occurrence count below 30 % of sustainability indicators co-occurrence in the same paragraph together with the indicators' performance keywords (see Figure 5 and detailed count data in Appendix D) indicates that sustainability-related news coverage is not consistently associated with performance outcomes or targets. This indicates that sustainability indicators are often employed in contexts not related to performance measurement. This means that often indicators are used in other contexts not related to performance and performance measurement.

The analysis of the collected data confirms our proposition: sustainability communication in the global sectoral business media is biased towards emphasizing commitment rather than implementation. This could reflect the media's consideration in selecting news to follow and companies' strategic corporate messaging aiming to build a favorable public image without full accountability for concrete sustainable actions and outcomes.

The potential limitation of this study arises from the selection of keywords used to define the context of sustainability coverage. The reliance on the most frequent keywords to categorize aspects of sustainability commitment, implementation, and indicator performance may introduce bias, as different sets of keywords could yield varied data interpretations and results. This methodological approach, while grounded in frequency-based prioritization, risks omitting less common but potentially significant terms that could reveal alternative insights. Methodological challenges related to keyword reliance require further discussion and refinement. Future research could explore expanded or alternative keyword sets, including those derived from sector-specific sustainability standards or frameworks, to assess the robustness of the presented findings.

Discussion and Conclusions

The above-presented results of the analysis should be taken into consideration in light of the conceptual and methodological reasoning of the research.

The newsworthy nature of media coverage; it might be expected that new initiatives, commitments, and goals are inherently more newsworthy than routine implementation progress, which, potentially, may create coverage bias toward commitments even when implementation is occurring (Oliver *et al.*, 2023).

Information availability to the media is another potential limitation; organizations may be more forthcoming with communication about plans than about implementation challenges or partial successes, thus affecting what business media can report (Haffar & Searcy, 2020).

We believe that, at least to some extent, revealed imbalance indicates existing and actual commitment-implementation bias; disproportionate coverage of commitments over outcomes may genuinely reflect industry-wide challenges in translating sustainability intentions into measurable results.

The results of the study may indicate the existence of symbolic sustainability communication practices, which are frequently discussed in the literature through the concepts of greenwashing and organizational decoupling. Other studies also identify mismatches between sustainability declarations and actual organizational practices in the fashion industry, particularly in digital and public communication contexts (Alonso-Mosquera, Sanz-Martín & Rodríguez-Laiz, 2024). Our findings align with previous research suggesting that organizations may prioritize symbolic sustainability communication and reputational positioning over implementation-related sustainability evidence (Pizzetti *et al.*, 2021; De Freitas Netto *et al.*, 2020).

The stronger focus on sustainability commitments rather than implementation-related outcomes may reflect broader organizational adaptation and sustainability transition challenges within TAF industries. Complex global supply chains, reputational pressures, and rapidly evolving stakeholder expectations may encourage organizations to emphasize future-oriented sustainability ambitions while implementation-related outcomes remain less visible in public business discourse (Nemes *et al.*, 2024). This raises questions regarding the transparency and effectiveness of sustainability communication practices and the extent to which sustainability commitments translate into measurable organizational change.

On the other hand, the results of the study may also indicate broader implementation-related challenges associated with sustainability initiatives in TAF industries. Previous studies discuss the difficulties organizations face when translating sustainability strategies into operational practices and measurable outcomes (Koksal & Strahle, 2021, John, 2019). Our study contributes to this discussion by providing evidence based on business media discourse analysis and sectoral sustainability communication patterns.

The study also contributes to existing sustainability communication research by examining business media news coverage through a quantitative content analysis approach. Unlike studies focusing primarily on corporate sustainability reporting or social media communication, this approach provides a broader perspective on how sustainability commitments and implementation-related outcomes are represented in sectoral business media discourse. In this way, the study contributes to the broader discussion on organizational decoupling and symbolic sustainability communication in TAF industries by demonstrating how business media discourse may reflect imbalances between sustainability commitments and implementation-related outcomes.

Possible reasons for the observed bias require further investigation. The role of existing reporting frameworks and sustainability indicator sets should be explored, as current systems may appreciate commitment-oriented communication by emphasizing goals, projects, and intentions over measurable implementation-related outcomes. Similarly, contextual factors, such as sectoral characteristics, regulatory environments, and stakeholder pressures, may shape the priorities in sustainability communication and respective business news media coverage.

Internal organizational factors, resource constraints, strategic priorities, or leadership commitment (John, 2019), may also contribute to this imbalance. External influences like media dynamics, public opinion, and societal expectations can play a role in framing sustainability narratives.

The study also has practical implications for managers and policymakers in TAF industries. The findings highlight the importance of balancing sustainability-oriented communication with more visible implementation-related evidence and measurable sustainability outcomes. From a managerial perspective, the results emphasize the need for more transparent and implementation-oriented sustainability communication practices. From a policy perspective, the findings contribute to ongoing discussions regarding sustainability reporting transparency and the reduction of symbolic sustainability communication practices in global textile and fashion value chains.

Future research should address the limitations of the present study to provide a more nuanced understanding of sustainability commitment-implementation gaps in TAF industries. A prospective direction would be the triangulation of business media discourse analysis with findings derived from corporate ESG and sustainability report analysis, where outcomes obtained through distinct methodological approaches and data sources could be systematically compared to provide a more comprehensive picture.

Incorporating qualitative methods also could enhance the depth of analysis, enabling richer interpretation of the organizational, sectoral, and contextual factors that shape sustainability patterns. Such combined efforts could contribute to improving the design of sustainability reporting systems and fostering more transparent, accountable, and actionable sustainability practices in TAF industries and broader organizational contexts.

Declaration of generative AI and AI-assisted technologies in the writing process. During the preparation of this work, the authors used Claude 4 Sonnet (Anthropic) to improve English grammar, spelling, and sentence structure throughout the manuscript, and to generate suggestions for future research directions based on the study's findings. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

Annex A. The Count Values of the Sustainability Indicators' Co-Occurrence Together in the Same Paragraph with the Sustainability Indicators' Performance Representing Context Keywords

Sustainability indicators	Frequency	fall	rise	decline	grow	decrease	increase	drop	SUM	%
textile waste	918	5	19	4	94	14	92	7	235	25.60
carbon footprint	912	11	10	1	71	23	99	4	219	24.01
renewable energy	837	16	29	9	103	18	164	10	349	41.70
carbon emissions	827	14	20	3	76	14	90	7	224	27.09
Transparent	813	9	15	1	61	5	87	1	179	22.02
greenhouse gas emissions	767	13	28	4	97	34	114	11	301	39.24
recycled materials	712	10	10	0	41	7	112	3	183	25.70
recycled polyester	664	7	6	0	49	7	64	6	139	20.93
Durable	525	3	4	0	48	3	41	3	102	19.43
electricity	495	15	31	10	65	13	95	10	239	48.28
co2 emissions	444	6	15	3	29	10	55	6	124	27.93
plastic waste	378	7	4	0	38	1	38	2	90	23.81
Water consumption	316	5	4	0	28	13	47	3	100	31.65
Traceable	314	4	3	1	40	0	22	0	70	22.29
energy efficiency	308	2	11	4	43	5	60	4	129	41.88
Sustainable packaging	119	0	2	1	12	3	13	1	32	26.89
Zero Discharge	111	0	1	0	6	1	19	1	28	25.23
Water pollution	96	0	8	1	12	1	10	0	32	33.33
natural fibers	96	2	0	1	6	1	5	1	16	16.67
green energy	80	0	2	0	9	0	12	0	23	28.75
Digital printing	71	0	1	0	6	0	1	0	8	11.27
Code of Conduct	55	0	0	0	3	2	2	1	8	14.55
organic materials	53	0	1	0	3	1	3	1	9	16.98
Child labour	37	0	0	0	2	0	2	0	4	10.81
regenerated cellulose	35	0	0	0	2	0	1	0	3	8.57
Discrimination	31	0	0	0	4	0	3	0	7	22.58
Chemical substances	30	1	0	0	1	0	5	0	7	23.33
Restricted substance	25	0	1	0	3	0	3	0	7	28.00
GHG emission	22	0	1	0	1	1	3	0	6	27.27
Env.Management System	21	0	0	0	1	0	1	0	2	9.52
SUM	10112	130	226	43	954	177	1263	82	2875	28.43

Annex B. The count values of the sustainability indicators' co-occurrence together in the same paragraph with the sustainability implementation representing context keywords (to improve readability 9 out of 15 the most frequently co-occurring context words are shown, SUM and % indicate total co-occurrences count)

Sustainability indicators	Frequency	achieve	complete	deliver	implement	reach	establish	result	Improvement	track	SUM	%
textile waste	918	36	35	17	10	22	11	22	13	9	186	20.26
carbon footprint	912	56	38	31	6	17	7	22	17	10	226	24.78
renewable energy	837	100	33	19	23	53	17	17	32	15	325	38.83
carbon emissions	827	87	30	30	13	33	14	22	26	18	284	34.34
Transparent	813	43	50	15	15	11	13	18	23	4	216	26.57
greenhouse gas emissions	767	90	18	16	29	29	6	16	53	26	301	39.24
recycled materials	712	28	18	8	7	17	5	10	9	8	118	16.57
recycled polyester	664	24	25	8	5	6	4	16	6	7	108	16.27
Durable	525	11	20	12	3	7	2	14	5	7	102	19.43
electricity	495	52	17	10	6	27	4	22	22	12	181	36.57
co2 emissions	444	35	16	7	5	21	3	23	11	6	136	30.63
plastic waste	378	17	15	11	3	11	7	12	4	2	89	23.54
Water consumption	316	17	13	4	9	6	3	11	13	4	88	27.85
Traceable	314	11	28	14	3	3	3	6	3	5	91	28.98
energy efficiency	308	23	16	10	13	16	3	10	61	3	160	51.95

Sustainability indicators	Frequency	achieve	complete	deliver	implement	reach	establish	result	Improvement	track	SUM	%
Sustainable packaging	119	9	2	3	2	2	2	0	1	1	23	19.33
Zero Discharge	111	9	6	4	9	2	0	4	4	2	43	38.74
Water pollution	96	1	3	3	4	1	2	5	3	1	25	26.04
natural fibers	96	1	5	1	0	0	0	3	0	0	10	10.42
green energy	80	10	2	4	3	2	1	2	0	0	29	36.25
Digital printing	71	2	2	1	0	0	0	0	0	0	6	8.45
Code of Conduct	55	2	2	1	3	1	0	5	2	2	19	34.55
organic materials	53	0	1	0	0	0	0	2	1	1	5	9.43
Child labour	37	1	1	0	0	0	0	0	2	0	5	13.51
regenerated cellulose	35	0	0	0	0	0	1	2	0	0	4	11.43
Discrimination	31	2	2	0	0	1	0	0	0	0	5	16.13
Chemical substances	30	2	0	1	1	2	0	1	3	0	11	36.67
Restricted substance	25	2	0	1	2	2	0	2	3	1	14	56.00
GHG emission	22	1	2	2	0	1	0	1	0	0	8	36.36
Env.Management System	21	0	1	1	2	0	0	2	2	2	10	47.62
SUM	10112	672	401	234	176	293	108	270	319	146	2828	27.97

Annex C. The count values of the sustainability indicators' co-occurrence together in the same paragraph with the sustainability commitments representing context keywords (to improve readability 13 out of 23 the most frequently co-occurring context words are shown, SUM and % indicate total co-occurrences count)

Sustainability indicators	Frequency	launch	project	initiative	establish	plan	introduce	aim	intend	roadmap	commit-ment	goal	target	objective	SUM	%
textile waste	918	119	118	61	33	20	22	35	15	6	58	74	32	13	655	71.35
carbon footprint	912	83	58	69	24	30	29	28	6	11	110	105	74	18	693	75.99
renewable energy	837	60	79	69	51	53	21	28	13	21	120	196	160	31	959	114.58
carbon emissions	827	98	54	62	40	25	23	23	6	20	121	152	146	15	827	100.00
Transparent	813	58	46	35	40	13	22	19	10	12	110	84	44	25	578	71.09
greenhouse gas emissions	767	75	39	96	23	32	18	24	15	16	126	208	198	28	976	127.25
recycled materials	712	83	34	48	18	6	17	18	10	2	83	87	40	12	496	69.66
recycled polyester	664	86	24	35	17	6	30	8	7	8	56	54	29	6	390	58.73
Durable	525	44	16	14	8	4	19	15	4	3	36	39	17	3	242	46.10
electricity	495	43	46	49	26	29	16	16	4	10	77	82	106	10	557	112.53
co2 emissions	444	39	24	28	17	20	18	15	7	5	45	61	61	13	372	83.78
plastic waste	378	43	36	25	17	4	17	14	2	4	44	46	16	9	294	77.78
Water consumption	316	32	12	18	10	8	12	6	0	4	39	55	31	5	256	81.01
Traceable	314	31	19	13	8	5	15	7	1	1	27	22	13	4	183	58.28
energy efficiency	308	22	22	18	16	17	11	7	2	9	31	71	56	10	322	104.55
Sustainable packaging	119	9	4	7	5	1	8	2	3	4	19	18	8	3	98	82.35
Zero Discharge	111	15	6	14	7	0	3	5	2	19	16	15	4	3	121	109.01
Water pollution	96	8	4	3	2	0	3	2	3	1	6	3	4	1	42	43.75
natural fibers	96	6	6	2	1	1	3	4	1	0	3	1	0	1	30	31.25
green energy	80	10	9	10	3	5	3	2	0	3	9	10	13	1	85	106.25
Digital printing	71	1	7	1	2	0	2	0	0	1	0	3	3	0	25	35.21
Code of Conduct	55	3	2	5	1	1	0	0	1	0	10	7	3	0	36	65.45
organic materials	53	4	1	1	0	1	1	1	0	0	1	1	2	0	14	26.42
Child labour	37	1	0	0	1	0	0	1	0	0	1	1	0	0	10	27.03
regenerated cellulose	35	2	1	0	1	0	0	0	1	0	2	2	1	0	12	34.29
Discrimination	31	1	2	2	0	1	0	0	0	0	3	1	3	0	15	48.39
Chemical substances	30	4	2	3	4	1	0	0	1	4	3	3	1	0	26	86.67
Restricted substance	25	3	1	5	4	0	1	1	1	5	4	4	1	0	32	128.00
GHG emission	22	2	2	6	2	0	1	0	0	1	3	4	9	0	34	154.55
Envi.Management System	21	2	1	0	2	3	0	0	0	0	3	4	1	0	17	80.95
SUM	10112	987	675	699	383	286	315	281	115	170	1166	1413	1076	211	8397	83.04

Annex D. The count number and percentage values (relative to the total count number of the indicator) of the sustainability indicators' co-occurrence together in the same paragraph with the commitment, implementation, and indicators' performance representing context keywords

Code System	Frequency	Performance Indicators		Sustainability Implementation		Sustainability Commitment		Total SUM of co-occurrences
		SUM	%	SUM	%	SUM	%	
textile waste	918	235	25.60	186	20.26	655	71.35	1076
carbon footprint	912	219	24.01	226	24.78	693	75.99	1138
renewable energy	837	349	41.70	325	38.83	959	114.58	1633
carbon emissions	827	224	27.09	284	34.34	827	100.00	1335
Transparent	813	179	22.02	216	26.57	578	71.09	973
greenhouse gas emissions	767	301	39.24	301	39.24	976	127.25	1578
recycled materials	712	183	25.70	118	16.57	496	69.66	797
recycled polyester	664	139	20.93	108	16.27	390	58.73	637
Durable	525	102	19.43	102	19.43	242	46.10	446
electricity	495	239	48.28	181	36.57	557	112.53	977
co2 emissions	444	124	27.93	136	30.63	372	83.78	632
plastic waste	378	90	23.81	89	23.54	294	77.78	473
Water consumption	316	100	31.65	88	27.85	256	81.01	444
Traceable	314	70	22.29	91	28.98	183	58.28	344
energy efficiency	308	129	41.88	160	51.95	322	104.55	611
Sustainable packaging	119	32	26.89	23	19.33	98	82.35	153
Zero Discharge	111	28	25.23	43	38.74	121	109.01	192
Water pollution	96	32	33.33	25	26.04	42	43.75	99
natural fibers	96	16	16.67	10	10.42	30	31.25	56
green energy	80	23	28.75	29	36.25	85	106.25	137
Digital printing	71	8	11.27	6	8.45	25	35.21	39
Code of Conduct	55	8	14.55	19	34.55	36	65.45	63
organic materials	53	9	16.98	5	9.43	14	26.42	28
Child labour	37	4	10.81	5	13.51	10	27.03	19
regenerated cellulose	35	3	8.57	4	11.43	12	34.29	19
Discrimination	31	7	22.58	5	16.13	15	48.39	27
Chemical substances	30	7	23.33	11	36.67	26	86.67	44
Restricted substance	25	7	28.00	14	56.00	32	128.00	53
GHG emission	22	6	27.27	8	36.36	34	154.55	48
Env. Management System	21	2	9.52	10	47.62	17	80.95	29
SUM	10112	2875	28.43	2828	27.97	8397	83.04	14100

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