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# Sustainability Communication in Global Consumer Brands

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**Abstract:** In light of the alarming climate change situation, the focus of society on sustainability has been enhanced. The recent initiatives at national and international levels to significantly lower greenhouse gas emissions and to transition to carbon-neutrality have highlighted the urgency. For a more sustainably oriented society, an important shift is needed; hence, we need to invest in creating more knowledge about the importance of sustainability with different stakeholders, and appropriate marketing and communication strategies can make a big difference. Changes need to happen in all sectors of society. The wood furniture industry, textiles, and car industry all produce products that consumers need daily, namely, furniture, clothes, and vehicles. These industries also produce similar amounts of harmful emissions in their manufacturing processes, which considerably contribute to pollution. Our objective was to investigate and to understand how the chosen industries communicate about sustainability. The three-pillar paradigm of sustainability—economic, environmental, and social—was studied. We chose to compare these different industries as they are among those that contribute to greenhouse gas emissions, and they produce end-consumer products made from different materials. Furthermore, the representative companies are global brands with a strong brand name and presence. The wood furniture industry uses natural materials, while the textile and car industries are more limited in this regard, even if they use some natural materials, for example cotton. Communication about the sustainability of the selected companies in the mentioned sectors was analyzed by applying qualitative content analyses of existing online communication. The companies were selected based on previously defined criteria—the size of the company, geographical location, and brand value. An analysis of the online communication of these companies has demonstrated that the selected industries communicate mostly about environmental topics on their webpages, and less frequently on social and economic issues. The wood furniture industry, although utilizing renewable natural materials, communicates about sustainability similarly to the other two studied sectors. This gives rise to suggestions for improvements in this sector that could give them a leading role in the narrative on communication about environmental, social, and economic sustainability.

**Keywords:** content analysis; economy; environment; society; sustainability; online communication



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## 1. Introduction

Sustainability is among the most widely used buzzwords. The large number of scientific publications dedicated to sustainability clearly shows that this topic has gained a lot of attention and value [1]. In the literature, there are several definitions of sustainability, yet the definition of sustainability put forth by the Brundtland Commission is still among the most cited. It defines sustainability as development that meets our present needs without compromising the needs of future generations [1]. Following this was the "Rio Declaration", under which sustainability began to be associated with free trade, and the need to link social and economic development that did not harm the environment was emphasized. Around this time too, the three-pillar paradigm of sustainability—economic, environmental, and social—was introduced [1]. For a long time, conversations about sustainability were mostly related to environmental issues, and did not tackle the issue as a whole concept [2].

A literature review on sustainability in tourism reached a similar conclusion—most of the studied articles considered the environmental dimension of sustainability, while others were mentioned less frequently [3]. Similarly, Korhonen and colleagues [4] also state that sustainability is a very common topic in forestry and wood-related topics because of their dependence on natural resources. The reason for this may be that, historically, sustainability has been related to forestry [5]. Sustainability should be about the well-being of future generations and about preserving natural resources [6]. To enable this, organizations and industries must be forced to change the way they operate, and must transfer their business models towards more sustainable and circular ones. Yet another reason for change is that consumers are more educated about topics related to sustainability and climate change, are more concerned, and demand sustainable actions from suppliers [2]. Programs have been developed to raise awareness in the general population and provide more knowledge about the environmental and sustainability issues. [7] Additionally, one study suggests that creating advertising campaigns that increase consumers' demand for green and sustainable energy benefit the environment, but also give psychological brand benefits [8]. Understanding sustainability as a wider concept, and connecting the economy, society and environment, was also discussed in other studies [9]. It was pointed out that the connection between societal and ecological sustainability is still not considered enough. Laurent [10] in his study researched this connection, and he suggests that environmental problems are basically social problems, stemming from imbalances in power and income. The transition towards a sustainability-oriented society needs to happen with the help of institutions that promote both environmental and social development, but there also needs to be an important change in human behavior and actions. In a recent study, the connection between income inequality as a factor of economic sustainability and the ecological footprint as a factor of environmental sustainability was investigated [9]. They found that the two pillars of sustainability are in fact connected; for example, economic growth and energy consumption positively affect the environment. However, the higher the income inequality, the higher the environmental degradation. In an empirical study performed in the USA, it was found that environmentally sustainable product attributes positively affect a company's profitability, and that US companies successfully communicate about their products attributes to their customers. The socially sustainable products attribution surely helps in creating a reputation of being a socially responsible company [11]. As noted by author Chung [12], the sustainable development of the whole society can be enhanced by promoting sustainable consumption behavior in customers. This not only provides economic benefits for all, but also gives a better shape to our environment.

The climate crisis and increasing temperatures are influencing several aspects of our lives, including the food and agricultural sectors. They affect growth and plant productivity, pest infestation, and other phenomena [13]. The threat of climate change is real, as evidenced by extreme weather events. The current trends predict that by 2100, the temperature will rise from 2.1 to 3.9 °C. However, even though in 2015 (with the Paris Agreement) countries agreed to reduce their emissions to keep global warming below 2 °C [14], it is apparent that we are still not doing enough. It is clear that society must drastically change its way of life if we want to achieve our climate goals.

Perhaps this can be mitigated by using marketing and communication strategies appropriately, with tailored messages for specific audiences, and by using accurate channels [15]. This has already been suggested in the past by several communication practitioners who developed models of communication, such as Lasswell's model, wherein he defined the communication process as "who says what, in which channel, to whom, with what effect" [16]. While much has changed about communication since then, these models remain relevant and efficient, and can serve as a good starting point. There is no lack of communication about environmental issues, climate change, and sustainability. We understand that it is a problem that concerns the whole society. However, it involves less certainty, and it rotates around a very complex issue, which is hard for most people to understand [15]. One of the challenges with communication about climate change is the invisible cause,

meaning that not seeing how we are harming the environment and not witnessing the effects directly and immediately influences people's behavior. The distance between the cause and effect, and not clearly seeing the link between taking action to improve the environment and the positive changes, are other challenges. Spending most of our time indoors in climate-controlled buildings, uncertainty about the actual meaning of an individual's actions, and a lack of social signaling (for example, putting a price on carbon), are the other challenges the author mentions [15]. Taking all this into account, communication practitioners can better understand what is needed in order to improve communication strategies regarding climate change, global warming, sustainability, etc. Today, issues connected with climate change and sustainability are much more prevalent among the general public compared to in the past, but it is undoubtable that more must be done to achieve a greener society. Furthermore, the field of communication has undergone many changes related to technological developments, and the rapid growth of the internet and web-based platforms. This has affected not only human interactions in daily life [17], but also the marketing and communication strategies of companies [18]. Social networks have become a crucial part of companies' marketing strategies. Developments in communication technologies and digital platforms have brought about many advantages, such as the ability to reach more people easily and create more engagement; on the other hand, this has also facilitated the spread of misinformation, with no real control over what is circulated around the web, and harmfully creating incorrect messages [15]. To efficiently communicate about sustainability, a clear communication strategy must be developed, and the appropriate communication channel, style, and content must be identified. Additionally, it is important to ensure that messages are coherent and in line with actions taken [19]. Clearer and simpler messages must be created, which will support the needed change in people's behavior [15]. The messages need to fill the gaps in knowledge between the professionals and the general public, and the urgency of these topics must be presented more persistently. To determine what kind of messages to share, you need to know your audience, and their values, beliefs, and attitudes. You have to know how to speak with your audience and where to reach them in order to be most successful. Furthermore, the message needs to be internally consistent, and fit in the mental models that help people make sense of what they perceive. Messages must get the attention of the audience and must have an important emotional impact [15]. Companies allocating high levels of resources to the development of green products are changing people's attitudes toward the brand via their communication strategies. It was noted that sharing less green messages is enhancing the relationship between the green products and changes in attitudes [20]. Knowing the purpose and the audience is crucial. In the systematic literature review paper of Lähtinen et al. [21], they concluded that there is a lack of information on how to appropriately communicate with different stakeholders in the forest sector. What is more, they found that communication channels are not used appropriately to communicate with different stakeholders. Channels are an important part of communication strategies. Deciding whether to send your message in writing or in spoken language, using mediated face-to-face communication, and talking with one person, one group or via mass communication, are important [15]. Communication strategies are a strong tool for influencing people and creating awareness. In relation to sustainability, this is especially important, as a shift in people's perceptions must happen in order to achieve the much-needed sustainability-oriented society. It is therefore necessary to change human actions and daily operations in all fields. Due to the rising risk of environmental issues, green marketing has developed, whereby companies are also dedicating their communication efforts to promoting green products and developing green brands. In order to be successful in the long term, they need to incorporate the concepts of green brand image, green satisfaction, and green trust [22]. Some authors [23] also suggest that higher education can be a helpful tool in overcoming the climate change issues, and in lowering greenhouse gas emissions. Investing in human capital, organizing courses, workshops, and conferences on this topic, and other mechanism will positively affect the final outcome of environmental quality. In this study, we investigated sustainability communication within

the three-pillar paradigm of sustainability—economic, environmental, and social—in the wood furniture, textile, and car industries, which produce products for end-users. These sectors were selected based on the study of Ritchie and Roser [24]. They suggest that the energy industry contributes the most to $CO_2$ emissions. As they defined it, the energy industry includes the categories of energy use in industry, in buildings, and in transportation. Energy use in industry is further divided into sub-categories; wood products (also wood furniture), emissions from manufacturing in the textiles industry, and transport equipment (such as the car industry) are in the same sub-category.

The role of the forest industry in fostering discussion about mitigating climate change is rising, as it produces substitutes for fossil-based materials with renewable and sustainable raw materials, biofuels, heat, and electricity [4,25]. Wood, as a renewable material, has positive environmental impacts, even if wood products (among which are included furniture), similar to other products, have an impact on the environment, from the manufacturing stage to transportation, the use of chemicals, and disposal. The energy used for their production in the manufacturing process is polluting and contributes to harmful greenhouse gas emissions [26]. In the furniture industry, waste that is mostly composed of wood-based materials is a source of environmental pollution [27]. The type of furniture chosen can also cause indoor pollution, which is harmful to human health [28]. According to Xiong et al. [29], moving towards green manufacturing in the furniture industry is the only way to be successful. The authors also state that the most important factor is green design, followed by using green materials for furniture, green manufacturing processes for production, utilizing green packaging, and employing green recycling technology. Additionally, the fashion industry has myriad sustainability impacts through the use of cheap fabrics, low wages for employees, hazardous chemicals, textile waste, and the overall promotion of fast fashion [30]. Some companies in the sector are developing green fashion, and are adopting more sustainable business models [31]. Excessive consumption and fast fashion have many environmentally harmful consequences. For example, in buying a vast number of clothes, more water is needed for washing them, more harmful (toxic chemicals) detergents are used, and more energy is spent on washing and drying machines [32]. Greenwashing is another concept that has developed in the fashion industry in their efforts to be more sustainable, meaning they identify themselves as sustainable and green, while in reality, they are misusing these words [33]. A study about the webpage sustainability communication of fashion companies showed that with more knowledge, awareness will increase, leading to sustainable consumption action [31]. Some of the companies that were studied did provide information on the sustainability of their operations, but only involved consumers up to a certain stage. They observed that these companies did not communicate the negative aspects of fashion consumption, because these are in contrast with their company's economic goals. This influences consumer behavior, as they continue to consume excessively. Demands on the global scale to reduce $CO_2$ emissions have also certainly affected the car industry. It has had to adopt changes by providing, for example, corporate social responsibility documents and sustainability reports, with which they communicate to their target audience the effects of their operations on society as a whole, and on the environment [34,35]. The car industry is presenting its vision, mission, strategies, objectives and initiatives in order to contribute to sustainable development. Besides reporting, they also engage with different stakeholders in a dialogue over relevant topics related to sustainability [35]. This shows that sustainability communication has become very important, and is utilized in the car industry.

The main motivation of our study is to understand how companies of global consumer brands use online communication tools (webpage) to communicate about the sustainability of their products and beyond, and to promote this in wider society. In addition, our intent is to determine if there are any differences in the online sustainability communication of the studied sectors, especially since the wood furniture industry utilizes renewable natural materials. The current research suggests that communication regarding environmental issues, including sustainability, should be investigated in depth. Companies from the

wood-working industry (including wood furniture), dealing with sustainable materials and sustainable practices, should take advantage of the fact that they use renewable materials, and engage more frequently in communication strategies, which could improve their position on the market and overall foster sustainability in society. In addition, environmental issues are very complex and hard to understand. This creates huge potential for the wood-working industry and other industries to invest in creative communication practices, to both improve and market their businesses and raise awareness of sustainable construction principles in society. This study provides insights into what kind of sustainability communication is successful for online channels. It provides important policy implications, although in recent years there have been significant developments in promoting sustainability and fighting climate change, and the results show that there is room for improvement in the wood furniture sector, in terms of environmental, social, and economic sustainability communication. This is an initial study that delivers a basis for further research in this field. The developed coding system can be further used and expanded to bigger samples and other industries.

In order to follow the main purpose of this study, we formulated the following research questions (RQ):

RQ 1—Are the representative companies from the chosen industries communicating equally about the three-dimensional concept of sustainability (environmental, social, and economic) on their webpages?

RQ 2—Are there any differences among the representative companies from the chosen industries in terms of sustainability communication?

## 2. Materials and Methods

This work is based on a qualitative content analysis of the existing online communication (webpage) of the selected three representative companies from the wood furniture, textile, and car industries. Content on their English webpage was analyzed. The representative companies were selected based on the following three criteria:

- Size of the company (number of employees)—All companies with more than 500 employees;
- Geographical location—For the analyses to be comparable in terms of demographics and cultural differences, all chosen companies needed to be operating worldwide;
- Brand value—Selected companies must have worldwide known brands and be part of the 100 top brands in brand value, as is measured by the World's Most Valuable Brands.

### *2.1. Selection of Companies Studied*

The companies in the wood furniture, textile, and car industries were selected based on defined criteria (size of the company, geographical location, and brand value). Data on the size of the company and location of operation were obtained from the Statista webpage in June 2021 [36–38]. The brand value of the companies was defined based on the Forbes annual list of the World's Most Valuable Brands [39]. The list of the top 100 companies for the year 2020 was checked and all chosen companies are in the top 100.

Following the developed selection criteria, the following companies were chosen:

1. Wood furniture industry—IKEA Group;
2. Textiles industry—H&M;
3. Car manufacturing industry—Volkswagen Group.

IKEA was selected as the representative company because it is the only one from the wood furniture sector that is listed in the Forbes annual list of the most valuable brands. Volkswagen and H&M were selected as they are both commonly chosen by consumers. Other brands such as Toyota, Audi, Porsche, and Zara that potentially meet the selection criteria are potential candidates for study in the future.

### *2.2. Data and Research Design—Content Analysis*

The coding process was undertaken by one researcher, utilizing the software Atlas (ti 7, 2012). We followed the suggested planning and stages of qualitative content analysis to ensure the credibility of the study [40]. The aim of the study was defined, and the sample (three chosen companies) was selected based on the developed criteria. The choice of data collection method was considered, e.g., communication on sustainability from the selected companies was determined by analyzing specific subpages—homepage, about us, and sustainability—on their webpages. All three selected companies had these subpages. The companies that were included in the study were not contacted in advance. The study was based on their publicly available content on webpages.

Following the aim of the study we defined the topics of interest (TOI) to be environment, society, and economy in order to cover the three-pillar concept of sustainability. For each of the TOI, codes were defined. In the process of data gathering and reading the webpage content we added more codes, as initially planned, since the content analysis is a reiterative rather than linear process [41]. We defined nine codes for environment, five for society, and seven for economy (Table 1).

**Table 1.** Developed codes for each of the topics of interest.

| TOI Environment | TOI Society | TOI Economy |
|---|---|---|
| Labels | Social impact | Employment |
| Recycling | Health | Income |
| Residues | Emotions | Price |
| Impacts | Inclusion and equality | Circular economy |
| Natural resources | Online | Consumption |
| Material use | | Business operations |
| Pollution | | Innovation |
| Design | | |
| Food | | |

For the environmental dimension we relied on the work of Feroz and Chiravuri [42] who identified topics such as pollution, waste, food, and water. Similarly, we developed codes for society to include components important for social sustainability. A conceptual framework of social sustainability that, for example, includes equality and safety is proposed [43]. Further, in our study, under this TOI, we included content related to donations, supporting social projects, social responsibility, supporting local communities and contributing to the development of the region and community, taking care of tradition, social equality, social capital, human rights, quality of life, and fairness. With respect to economic sustainability, terms such as cost, consumption and profits were coded [44].

### *2.3. Comparison of Companies*

Table 2 shows all the codes, based on which we compared how the chosen companies were communicating about sustainability on their selected webpage subpages.

**Table 2.** Coding and explanation of meaning of separate codes with keyword.

| Codes | Keywords |
|---|---|
| Labels | Ecolabels for sustainable forestry, FSC, PEFC, ISO standards, sustainable sources, sustainable managed forests, sustainably sourced materials |
| Recycling | Recycling and cascading use, reuse, second hand products, refurbishment |
| Residues | Residues, waste, waste paper, waste management, waste water |
| Impacts | Water, air, toxic, chemicals, dust and noise, transportation, environmentally friendly production, natural energy resources, negative carbon footprint, LCA, climate footprint, storing carbon, environmental impact, oceans |

**Table 2.** *Cont.*

| Codes | Keywords |
| --- | --- |
| Natural resources | Bio, eco, organic resources for our products, garden, biodiversity, houseplants, nature, eco-friendly, green products, green transport |
| Material use | Natural materials, renewable, reusable, environmental footprint, plastic, electric vehicles, wood, durability, long lasting products, durable products, clean energy, green energy, energy use |
| Pollution | Global warming, climate change, lowering $CO_2$ emissions, greenhouse gasses, zero waste or low waste, climate positive, zero emissions in transport, better for our planet, environmental protection, climate protection |
| Design | Safety of products, quality, design |
| Food | Types of food |
| Social impact | Donations, supporting social projects, social responsibility, supporting local communities, taking care of tradition, actual societal problematics, taking care of the customer, social capital, human rights, quality of life, creating funds, awareness, social entrepreneurs, fostering new ideas, cultural change |
| Health | Health benefits, well-being, feeling good, animal welfare, harmful, safety |
| Emotions | Emotional value for products, connecting with customers, co-creation, care, creating a change, responsible purchasing |
| Inclusion and equality | Diversity, talented, non-discriminatory |
| Online | E-commerce, e-mobility, digital |
| Employment | Care for employees, education programs, job descriptions, supportive leadership, valuable employees, labor rights/agreements, fair wages, employee knowledge, responsible management towards employees, working conditions |
| Income | Revenue number, income, salary, financial operations, investments, national economy |
| Price | Product price |
| Circular economy | Circular products, circularity |
| Consumption | Consumption |
| Business operations | Regulations, strategies, management, how they operate, brands, leadership, CSR |
| Innovation | New products, new technologies, driving innovation |

## 3. Results

In total, our data set consists of 3975 observations (number of hits) regarding the three TOIs. The data can be divided by the selected companies—IKEA Group accounted for 1724 observations, H&M accounted for 1193 observations, and Volkswagen Group accounted for 1058 observations (Table 3). Additionally, number of hits per TOI and the percentage of total codes are presented in Table 3. The number of total times coded in different TOIs should not be compared in absolute numbers, as the lengths of the text available on the studied webpages differed. Therefore, the percentage of coding per TOI was compared. In all three companies, the most frequently coded TOI was environment. In IKEA Group and Volkswagen Group, the second most frequently coded was society, while in H&M the second most coded was economy. The data from all observations for each code are presented in the Appendix A (Table A1).

**Table 3.** Observations of topics of interest by chosen companies.

| Company | Environment | Society | Economy | TOTAL |
|---|---|---|---|---|
| IKEA Group | 737<br>42.7% | 655<br>38.0% | 332<br>19.3% | 1724<br>100.0% |
| Volkswagen Group | 448<br>42.3% | 317<br>30.0% | 293<br>27.7% | 1058<br>100.0% |
| H&M | 540<br>45.3% | 292<br>24.5% | 361<br>30.3% | 1193<br>100.0% |
| TOTAL | 1725 | 1264 | 986 | 3975 |

Some of the most used codes were:

- Material use (TOI Environment) including content related to natural materials, renewable materials, reusable materials, other materials such as plastic, environmental footprint, electric vehicles, wood, material durability, long-lasting products, clean energy, green energy or energy use;
- Impacts (TOI Environment) including content related to water, air, toxicity, chemicals, transportation, environmentally friendly production, life cycle assessment (LCA), climate footprint, storing carbon, environmental impact, and oceans;
- Pollution (TOI Environment) including content related to global warming, climate change, lowering $CO_2$ emissions, greenhouse gasses, zero waste or low waste, climate-positive, zero emission, environmental or climate protection;
- social impact (TOI Society) including content related to supportive activities for the society such as donations, supporting social projects, taking care of traditions, social entrepreneurs;
- emotions (TOI Society) including content related to emotional value, addressing the audience by using terms such as beautiful, responsible, co-creation, or reaching the audience by appealing to the emotional component;
- employment (TOI Economy) including content related to employees, health and safety standards at the workplace, education programs for employees, jobs, labor rights, fair wages, and working conditions;
- business operations (TOI Economy) including content related to regulations, strategies, management, how companies operate, their brands, and leadership.

For the IKEA Group, the most commonly coded was the TOI Environment, followed by the TOI Society, and finally the TOI Economy. With respect to the TOI Environment, material use was most commonly mentioned, followed by code impacts, and finally code pollution. From the TOI Society, the most frequently used codes were social impact and emotions. In the TOI Economy, the most used code was employment.

Similarly, for Volkswagen Group, the TOI Environment was the most commonly coded, followed by the TOI Society and the TOI Economy. The most frequently used code in the TOI Environment was pollution, followed by material use and impact. As in the IKEA Group, the social impact code was the most widely used of the TOI Society. The single code that was the most frequently used in this case was business operations, from the TOI Economy.

The TOI Environment was also predominant for H&M, followed by the TOI Economy, and finally TOI Society. The most frequent single codes from TOI Environment were impacts and recycling. From TOI Society, the most frequent codes were social impacts and emotions. From the TOI Economy, the code most frequently identified was business operations, as in the case of Volkswagen Group. The second most frequently used code was employment. In the Table 4 the most frequently used codes for each company are presented.

**Table 4.** The two most frequently used codes per TOI for each company.

| TOI | IKEA Group | Volkswagen Group | H&M |
|---|---|---|---|
| Economy | Employment<br>Business operation | Business operation<br>Employment | Business operation<br>Employment |
| Society | Social impact<br>Emotions | Social impact<br>Emotions | Social impact<br>Emotions |
| Environment | Material use<br>Impacts | Pollution<br>Material use | Impacts<br>Recycling |

Codes in the TOI Environment differ among the companies, while frequently used codes in the TOI Economy and TOI Society are similar for all three companies. Regarding the TOI Environment in both the IKEA Group and Volkswagen Group, we frequently identified the code material use, while this was not as frequently seen in H&M, where we detected the code recycling, which was not as frequent in the other two companies. Furthermore, IKEA Group and H&M both often talked about impacts. In the Volkswagen Group, we detected the code pollution.

TOI Society was most frequently coded with the code social impact, followed by the code emotions in all three studied companies, and the TOI Economy was frequently coded with employment and business operations.

Examples of all codes for each company are presented in Table 5.

**Table 5.** Examples of codes from all TOIs for each representative company.

| TOI | Code | IKEA Group | Volkswagen Group | H&M |
|---|---|---|---|---|
| Economy | Business operation | We've also partnered with the Sweden Textile Water Initiative (STWI) in China since 2015, supporting three textile suppliers. | Volkswagen Group is shaping the profound transition phase while modernizing and digitalizing the entire company in the process. | We do business and interact with the world around us. |
| | Circular economy | We are committed to designing all products with circular capabilities by 2030. | We intend to maximize resource efficiency and promote circular economy approaches in the areas of materials, energy and water. | H&M Group's vision for sustainability is to lead the change towards circular and climate positive fashion. |
| | Consumption | To meet the challenges of unsustainable consumption, climate change, and growing inequality, we are—in collaboration with partners, co-workers, and customers—taking ambitious steps towards a more sustainable future. | Influence consumption and mileage values. | / |
| | Employment | 20,000 jobs and incomes supported through our collaborations. | We need competent and committed employees. | This goes for recruitment as well as supporting equal opportunities to grow and develop when employed. |
| | Income | Decent employment with a fair income. | We want to help shape the future of mobility—in a responsible and environmentally-friendly way that profits everyone. | Achieving fair living wages, reducing overtime and ensuring workplace safety are key focus areas. |
| | Innovation | New ways to innovate and reduce $CO_2$ emissions. | Technological innovations play a pivotal role in the design of pioneering mobility solutions with inspiring products and services that define the brands. | We're using our influence to support positive transformation in the fashion industry — driving innovation, collaborating with others, pushing for greater transparency and rewarding sustainable actions. |
| | Price | Sustainability should be inspiring and affordable for the many. | These remanufactured parts offer as-new quality, but at a much lower price than new parts. | Festive fashion at great prices. |

**Table 5.** *Cont.*

| TOI | Code | IKEA Group | Volkswagen Group | H&M |
|---|---|---|---|---|
| Society | Emotions | The world needs a better everyday life right now. We'll keep working hard to make that vision reality. | We are honest and speak up when something is wrong. | We encourage everyone to be themselves and respect others. |
| | Inclusion and equality | Our designers call it "inclusive design", and it's just one way we're making IKEA more accessible for the many people. | We want to deliver mobility for everyone around the world. | We're committed to being an inclusive business that embraces people's differences. |
| | Social impact | Enable sustainable consumption and transform into a circular business by inspiring and enabling people to live better lives within the limits of the planet. | Volkswagen uses national and international cultural projects and partner-ships to promote education in modern art. | The best way to invest in the future is to take good care of our people, our products, our customers and our planet. |
| | Online | This year we also developed a convenient, easy-to-use online ordering solution that makes getting spare parts easier. | Anhui province is to be transformed into a new center of competence and e-mobility hub for the Volkswagen Group in China. | COVID-19 is speeding up the digital shift in the industry as more and more shopping takes place online. |
| | Health | We are committed to becoming a circular business and empowering our customers to live a healthier and more sustainable life. | If a person's safety is jeopardized, we react immediately, appropriately, and adequately. | In turn, this leads to an openness to address specific key issues such as worker wellbeing, health and safety, or wages and compensation. |
| | Design | It also means designing all IKEA products to be repurposed, repaired, reused, resold and recycled, right from the beginning. | Our brands have long set standards in technology, design and quality with their vehicles. | We are a family of brands, driven by our desire to make great design available to everyone in a sustainable way. |
| Environment | Food | Over 2.3 million kilos of food has been saved since the programme started two years ago, which is equivalent to more than 5 million standard meals. | / | It provides us with the supply of clean water and food, and other essential environmental goods such as pollination, buffering from natural disasters and resilience against climate change. |
| | Labels | We also work to spread the word about responsible forest management and FSC certification, so more business owners and forest owners see the benefits and join forces. | In a Life Cycle Assessment (LCA) carried out in accordance with ISO 14040, Volkswagen calculated the environmental impacts of a newly manufactured MQ 250 5-speed transmission and compared them with those of a Genuine Remanufactured Part. | Wood products carrying the FSC™ Recycled label have been verified by a third-party certification body as being made from at least 70% post-consumer reclaimed materials, i.e., wood and or wood fibres that have been reclaimed from a product after that product has been used for its intended purpose. |
| | Impacts | Many of us in the western world live our lives as if there will always be enough water. The fact is that we are using the groundwater on credit. | That means fascinating new products and reduced $CO_2$ emissions during the use phase. | Let's use our resources responsibly. |
| | Material use | Removing single use plastics also calls for a change in consumer behaviour. | By 2025, the share of battery electric vehicles in our model portfolio will be between 20 and 25%. | Only source 100% sustainable cotton. |
| | Natural resources | Our goal, along with other members of the coalition, is to scale up solutions to crop residue burning, including the use of crop residues for product production and bioenergy. | Thanks to the 33% improvement in the energy efficiency of the combined-cycle plants and the use of natural gas instead of coal, the $CO_2$ emissions of the two power stations are to be reduced by about 60% or 1.5 million tonnes per year. | We will work to prevent and reduce our overall impact on biodiversity and natural ecosystems in our value chain. |
| | Pollution | To reach our goal of becoming climate positive by 2030 we need to cut $CO_2$ emissions in all stages of our value chain—even home deliveries. | The benefits are maximized if the vehicle is charged with renewable electricity, bringing service-life $CO_2$ emissions down to almost zero. | This is why we have signed The New Plastic Economy—Global Commitment, an initiative by the Ellen MacArthur Foundation to prevent plastic pollution. |

In Figure 1, we present all codes divided by TOIs for each company.


**Figure 1.** Frequency count of each code, divided by TOIs and companies.

The IKEA Group, Volkswagen Group, and H&M are communicating about environmental, societal, and economic aspect of sustainability to some extent. As we can see from the presented results, the topics of interest that are mostly used when communicating about sustainability are related to environmental topics. All studied companies communicated content about greenhouse gas emission, climate change, recycling, pollution, and sustainable, renewable materials or products. The second pillar of sustainability that was mostly used in communication content was related to society, except in the case of H&M, where topics related to the economy were more common. In relation to topics about society, the companies mostly communicated about social responsibility, supporting social project and communities, caring about tradition, actual societal problems, human rights, etc. Additionally, they appealed at an emotional level. Topics related to economy were primarily related to business operations, but content related to employment was also frequently given. If we investigate the results on the single code level, we can see some more differences. For example, in the case of IKEA Group, the social impacts code was used most frequently, highlighting peoples' perspectives and the company's concern for providing their customers with a good quality life. They connected their content to actual topics that are important for their audiences, such as the COVID-19 pandemic and refugee crises. On the other hand, for both Volkswagen Group and H&M, the single code with the most hits was business operations. The Volkswagen Group mostly mentions topics related to digitalization, modernization, and company processes, while H&M mentions business and business practices more in general, often in connection with addressing consumer needs with their managerial practices. For example, they communicate about the foundations that they established, whereas Volkswagen Group communicated about their transition to electric vehicles, new strategies, and sustainable growth.

## 4. Discussion

In our study, we found that each of the global companies that were analyzed communicate about sustainability on their webpages. This means that the global companies from the three different sectors place great importance on the topic of sustainability. In relation to the RQ1 we saw that the three pillars of sustainability are not equally used in online communications. Each company included more content about environmental impact than society and economy. This result was expected based on the studied literature, concerning the environmental aspect of sustainability in general and what is historically connected to sustainability [2,4,5]. Companies tend to address sustainability by changing their packaging materials, reducing waste and lowering their carbon footprint, rather than making sure their economic operations benefit the wider society. On the other hand, we have to point out that our analysis focused only on the webpage content of three subpages, e.g., homepage, about us, and sustainability. If other webpage sections were to be included in

the analysis and all documents linked on the webpages (such as yearly reports, sustainable reports and special catalogues), the results could be different. However, since the objective was to compare the companies, only the selected subpages were analyzed, which we realize is a potential limitation of this study.

With reference to RQ2, the results show that all the studied companies primarily focused their communication on environmental sustainability, with content about impacts, pollution and materials used, emphasizing the use of natural materials, renewable materials, reducing the use of plastic, being eco-friendly, reducing carbon footprint, not polluting the air, and water. This can be explained again from the historical point of view, as sustainability has primarily developed in relation to environmental challenges and movements, and is connected with forestry [1]. Some difference between communications about environmental sustainability can be noted in the case of H&M, as among the most used codes is recycling, which appears to be not as frequent for the other two companies. Additionally, a difference among the companies was noted in the second most frequently used pillar of sustainability. In the case of the IKEA Group and Volkswagen Group, this was societal sustainability, while for H&M it was economy. We noted that regarding the economic aspect of sustainability, companies provide content about business operation and employment. The economic pillar of sustainability is complex, as economic development is often connected to unsustainable actions that are focused on profits rather than on planetary ecosystems and biodiversity. Additionally, academics found that efforts have been made to reconcile economic growth with care for the environment and also human beings [1]. The studied companies communicated on their webpages about their business operations, the implementation of regulations and strategies, and how their management and leadership aims at long-term economic goals that go beyond the interests of the company. Furthermore, they emphasized employment opportunities and how they take care of employees. We can also connect this with the social aspect of sustainability, wherein the companies emphasize the use of emotions and point out their social efforts, for example, taking care of the local community, and addressing current societal crises, such as the pandemic and refugees. Emotions are an important tool that companies use when addressing their consumers. As some authors [4,15] point out, creating messages with an emotional touch and strong impact is more effective. Since companies have been forced to move to online platforms and to enhance their digital presence, the code online connected to the recent global pandemic was added to our study. The analysis of the results obtained for single codes further highlights differences between the observed companies. For example, in the studied content of the IKEA Group, the social impact code from the TOI Society was used most often, and in the Volkswagen Group, it was business operations from the TOI Economy.

However, for the purpose of our study, we wanted to get an overall view and to understand in general the communication given by companies in the selected industries on topics related to sustainability. In addition, for RQ2, we can state that the overall difference in communication about sustainability among the three sectors is not very significant, indicating that these sectors are acting similarly when it comes to sustainability communication. The wood furniture industry could take on a more leading and active role in this regard, given that it operates with a natural renewable material, which has a lot of potential to contribute towards mitigating climate change. This is also being currently emphasized at the highest levels of the European Union, with strategies and initiatives to lower greenhouse gas emissions and transition towards a carbon-neutral continent. Documents such as the European Green Deal [45] and the New European Bauhaus [46] are only two examples of such directives that aim towards a sustainability-oriented society.

In addition to the identified limitation of the studied content from three website subpages, this study was also constrained by a few general limitations. First, the sample size consists of three representative companies from three different industries. We studied the three companies based on the described and developed criteria; however, we are aware that other companies and other industries could meet our criteria. In further studies, this methodology can be used for investigating companies from this and other industries, resulting

in important findings about communication on sustainability. A second limitation is connected with the language of the studied content. For this study, we analyzed content only in English. Perhaps in future studies, content analysis can be applied and include other languages, in order to determine if there would be any major differences. This study can serve as an initial study for larger studies, including wordcount vectors of 100 and more company webpages. The different company webpages can be clustered based on their online communication strategies.

The findings of our study provide insight into what kind of communication and messages these three big and global companies are using on their webpages to target audiences. Considering the Forbes list, the companies studied are among the most globally successful, with strong brand names; therefore, following their online communication strategies is a possible path towards success. The study of the online communication of these companies suggests that focusing on messages about environmental issues, and presenting the information about material use and its impacts, is a successful communication strategy. Furthermore, messages with an emotional touch and with emphasis on company business operations could contribute to success.

## 5. Conclusions

Communication on sustainability in the wood furniture, textiles, and car industries was investigated in order to understand how they approach the online communication process. The study of the three representative companies relied on the three-pillar paradigm of sustainability. It showed that all the selected industries communicate mostly about environmental topics on their webpages, and less frequently on the social and economic issues. Even the wood furniture industry, which utilizes a renewable natural material, communicates about sustainability similarly to the other two studied sectors. This finding leaves room for improvements in the wood furniture sector, which should take a principal role and lead the narrative on communication about environmental, social, and economic sustainability.

The findings also provide important policy implications, even if in recent years there have been significant developments in promoting sustainability and fighting climate change, at both the European and the worldwide level. It is important to develop documents, strategies, and initiatives that include and promote both the economic and social aspects of sustainability, rather than mostly relying on the environmental aspect. Undoubtedly, the environmental crisis is a major issue; however, the other two aspects of sustainability should not be excluded. More communication efforts should be put forth by policymakers to ensure that the green transformation of our society can be achieved. Here, it is important to mention the New European Bauhaus initiative as one in which other aspects of sustainability are also included. Expanding the communication on sustainability at the policy level can greatly help raise awareness of the prevalent issue of climate change, and can suggest actions to be taken in order to be a more sustainability-oriented society.

The results from this study provide a basis for further research in the field of communication on sustainability, especially taking into consideration the differences we found in single codes. The developed coding system addresses the three-pillar concept of sustainability, and thus provides an adequate tool for further analyzing companies from these three sectors, and for companies from other industries, such as construction, mining, or other polluting industries. Finally, these results and methodology can be of benefit for other researchers and interested stakeholders, helping them to better understand what kind of communication strategies to use when addressing the three-pillar concept of sustainability on the organizational webpage. The developed coding system can be further used and expanded to analyze bigger samples or other industries, resulting in important findings pertaining to sustainability communication.

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## Appendix A

**Table A1.** The data from all observations for each code.

| TOI | Codes | IKEA Group | Volkswagen Group | H&M |
|---|---|---|---|---|
| Economy | Business operation | 27.7% | 72.7% | 36.0% |
| | Circular economy | 15.4% | 0.3% | 12.0% |
| | Consumption | 1.5% | 1.4% | 0.0% |
| | Employment | 28.9% | 12.3% | 22.0% |
| | Income | 11.7% | 0.7% | 17.0% |
| | Innovation | 6.0% | 8.2% | 4.0% |
| | Price | 8.7% | 4.4% | 7.0% |
| Society | Emotions | 27.0% | 30.6% | 27.1% |
| | Inclusion and equality | 22.4% | 10.0% | 22.6% |
| | Social impact | 43.1% | 49.5% | 31.2% |
| | Online | 1.4% | 5.0% | 3.8% |
| | Health | 6.1% | 4.7% | 15.4% |
| Environment | Design | 4.5% | 0.4% | 1.1% |
| | Food | 9.2% | 0.0% | 0.4% |
| | Labels | 3.8% | 0.4% | 6.5% |
| | Impacts | 19.7% | 14.1% | 23.5% |
| | Material use | 22.7% | 21.9% | 17.4% |
| | Natural resources | 7.6% | 6.5% | 11.3% |
| | Pollution | 14.9% | 43.3% | 13.0% |
| | Recycling | 9.0% | 8.9% | 20.2% |
| | Residue | 8.7% | 4.5% | 6.7% |

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