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Rafael Pereira Telha , [Paulo Vitor Jordão da Gama Silva](#) ^{*} , [Vinicius Mothé Maia](#)

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Article

The Evolution of the CSR and ESG Debate on Twitter: An Overview from the User Perspective.

Rafael Pereira Telha ¹, Paulo Vitor Jordão da Gama Silva ^{2,*} and Vinicius Mothé Maia ³

¹ MSc. Student at UNIGRANRIO; rafaeldocm@hotmail.com

² Professor at UNIGRANRIO; paulo.jordao.phd@gmail.com

³ Professor at UFRJ; vmaia@facc.ufrj.br

* Correspondence: paulo.jordao.phd@gmail.com

Abstract: This study analyzes the evolution of Corporate and Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) concepts in social media, specifically on Twitter, from 2007 to 2022. The research aims to understand how society perceives organizational practices related to these aspects. Twitter provides an authentic environment for capturing user perceptions. The methodology involved collecting Tweets using Python and analyzing them in English, Spanish, and Portuguese with RStudio. The study's main findings highlight significant contributions and concerns within the CSR and ESG debates. While CSR's popularity showed a downward trend from 2010 to 2019, ESG grew exponentially during the pandemic and post-pandemic periods. Word analysis revealed the impact of specific hashtags: RSC in Spanish, #CSR in English, and #ESG in Portuguese. Society's increasing concerns concern environmental issues for combating global warming and ensuring a better quality of life, alongside financial transparency and ethical practices in companies. However, the social aspect of ESG, represented by the letter "S," didn't garner the same attention as environmental and governance matters. This discrepancy might stem from a lack of awareness or lower priority in public discussions on social media, overshadowing the social dimension in the ESG framework.

Keywords: CSR; ESG; RSC; social media; Twitter

1. Introduction

According to [1], in recent decades, there have been several discussions on Environmental, Social, and Corporate issues in the face of the critical role that small, medium, and large organizations have in society. Thus, as highlighted by [2], many organizations focus on producing goods or providing services to society, not only focusing on profit but worrying about the positive results they can cause to society as a whole.

[3] conceptualizes CSR (Corporate and Social Responsibility) as the obligations of entrepreneurs and managers to pursue policies and decision-making, following actions that are consistent with society's values, assuming considerable influence in people's lives, improving and resolving issues of economic and social imbalances, and assuming specific responsibilities with society.

ESG (Environmental, Social, and Governance), it comes to verify the extent to which a particular organization works in favor of society, going far beyond the maximization of the profit it wants to obtain, but also what can be converted into benefits for the population, referring to all practices that companies carry out aimed at the environment, society and the organization in a sustainable way [4].

[4] found that companies that adhere to good ESG practices seek to minimize environmental impacts. With this, the focus shifts to taking better care of society, respecting differences, encouraging diversity, equality, and social inclusion, making essential issues relevant to the present time, and implementing policies and actions that highlight transparency and accountability.

According to [5], the need for transparency in political decisions and the involvement of society in the decision-making process in the so-called governance is evident. Governance emerged from the

reflections of the World Bank through the deepening of the thought developed around the theme, verifying conditions for a more efficient State.

From the study presented, we noted the great proximity of the pointed themes—CSR and ESG—identified by the literature review that they end up becoming complementary over time, considering the updating of thinking, technology, corporate practices, and needs encountered in the day-to-day of corporations to perpetuate themselves over time, using it as a competitive advantage in business [5].

This work aims to investigate how the evolution of the debate between CSR and ESG on Twitter is perceived from its creation to 2022 to understand society's perception of the subject. The study in question is limited to verifying the analysis of the evolution of thought destined to the CSR for the ESG, dealing with the question of the evolution of the debate, an update of information, organizational practices, being carried out a collection of data in the social media (Twitter) through an extraction based on the Python language, and analysis with the R software, identifying as a sample the perception of the population (in three different languages, Portuguese, Spanish and English) regarding the referred thematic subjects.

This study becomes relevant insofar as it is necessary to observe society's perception of Social and Corporate Responsibility and the new theme related to Environmental, Social, and Governance to understand all the applications and practices of the techniques developed on these issues and verify whether companies are acting ethically and transparently, without focusing only on profit, but with the concern to develop actions that can contribute to society, bringing better working conditions, employability, sustainable development, and the possibility of leverage of the country's economy.

2. Theoretical Framework

2.1. *Analyzing the Origins of CSR and ESG*

Contemporary studies focused on Social and Corporate Responsibility were significant after the evolution suffered in industrial society. All the scientific studies originated since that time, collecting diverse thinkers and researchers such as Henri Fayol, Frederick Taylor, Adam Smith, and Max Weber, among others, and theories such as Scientific Management, Classical Theory, and Human Relations Theory, among others, as pointed out by [6].

According to [7], the first theoretical studies developed after the post-industrial period emerged in 1950, but only after 1970 that the works gained prominence. However, in this context, they developed a study to propose the term "public responsibility" because they understand that social responsibility is a function of the management of organizations in the context of public life, showing the difficulty of identifying and defining the limits between what is public and what is private in the business field.

In the 1980s, the concept of Social Responsibility underwent a makeover when faced with the argument of globalization, covering itself with rules that favored the market. It invoked liberal ideology and mentions that the market regulates and supervises business activities, preventing abuses and actions by organizations that harm the operating environment [7].

In this way, according to [8], from the 1980s onwards, companies globally began to act not only thinking about the profit obtained or to be obtained but also to adopt social and environmental actions that would bring benefits not only to the organization's image but as a more significant achievement perceived in the long term applied directly to society.

According to [9] also, in the late 1990s, the United Nations (UN) prepared the Global Compact, with several issues involving ethics and morals within the business scope (taking more significant proportions on the subject). This document recommends that business people consider several applications of rules and actions involving principles on human rights, labor, and environmental issues. In this way, this document was a precursor to the object of Social Responsibility.

Another widely used term, Triple Bottom Line, is considered a self-sustaining theme, as [10] mentioned. This concept, also known as the Sustainability Tripod, was developed by the British sociologist John Elkington in 1994, establishing that environmental and social performances should be implanted in the financial statements of companies, making an analytical comparison of their

benefits, considering the ecological dimensions, social and economic system, explored. Three pillars form the basis of this method: People, Planet, and Profit - the 3 Ps of sustainability.

The term ESG (Environmental, Social, and Governance), as evidenced by [4], has been widely used to refer to companies that adopt this model as a strategy or nominate themselves for investment funds. According to [11], new acting methods become essential competitive strategies for the organization's health. The role of process innovation in more mature sectors, whether or not within a specific niche, is of great value for business growth. Thus, assessing a company's external environment and analyzing the threats and opportunities that organizations face must begin with assessing the general environment in which it operates and, in this context, which may impact all strategic choices.

ESG is not a new subject. This sensitivity has existed for decades. The big news is the translation and application involving the three words that comprise this acronym. Corporate environments have come to treat this issue as one of the most important lately, mainly due to the global objective of wanting to make the world a better place. This acronym has become synonymous with sustainability, becoming an organization's strategic issue, according to [4].

However, how did the term ESG come about? According to [12], the term was first seen in 2004 in the Global Compact, in the United Nations (UN), in reports to implement the idea in organizations regarding the adoption of principles in areas of human rights, work, environment, and anti-corruption, with more transparencies and ethics, in partnership with the World Bank, called "Who Cares Wins" (in free translation, "Win who cares"). At that time, the then UN Secretary-General Kofi Annan encouraged and attacked the 50 presidents of critical financial institutions on how to act and integrate social, environmental, and governance factors in the capital market.

According to [13], it is critical to highlight the difference between ESG and CSR, verifying the main inequalities between these concepts, proposing criteria that address their applications in organizations, and even considering their similarities when the theme involves socio-environmental responsibility, reputation, and credibility, considering the so-called SDGs (Sustainable Development Goals), a term used by the UN.

[14] identifies in his studies that sustainable development is a need for the world to make better use of raw materials over the years. Concern about climate issues has become something essential and recurrent in recent times, causing investors to demonstrate reasons for implementing actions for this purpose aimed at better use, as occurs with the replanting of forests carried out by loggers after the extraction of trees.

According to [15], all that investment based on ESG brings the importance of organizations to social and governmental responsibility and the results of the impacts of their actions on society, reducing risks related to financial disasters caused by environmental and political crises. In addition, there is the other extreme aimed at investors, who rely on ESG for decision-making, conducting their business on critical assumptions such as: 1) Climate change; 2) Toxic components; 3) Sustainability Reports; 4) Attracting and retaining talent; 5) People development; 6) Quality of life improvements; 7) Incentive to volunteer work; 8) Promotion of code of conduct; 9) Commitment to value creation; 10) Guarantee of efficient risk actions.

2.2. A Discussion about the Evolution of Concepts

In his studies, [16] confirms that corporate governance originated from the Classical Agency Theory debates. In this theory, the owner assigned actions to an administrator who made decisions about the companies he worked for and undertook various tasks contributing to the ultimate business objectives. Over the years, these activities have undergone improvements that, influenced by technology, have adapted the various business activities worldwide, such as the advent of the Internet, cell phone applications, websites, and payment methods.

[17] identifies that since its emergence in 1950, the concept of Social and Corporate Responsibility has evolved along with several other theories that permeate those related to business administration. Since then, the academy has discussed topics, practices, and tools that enable companies to act fairer toward society.

[18] also identifies some main strategies normally applicable to organizations over time, such as reducing energy use; reduction of water use, with recovery or recycling of water; reduction in the use of raw materials; change in storage, transport, and handling procedures; selectivity of environmentally correct suppliers; social, cultural and educational projects. These implementations vary according to the performance and activity of each organization as they develop different policies to meet these needs.

Still, according to studies by [17], CSR has its first literary record in the book *Social Responsibility of Business Men* by [19]. In this work, the author assumed that, in the figure of an entrepreneur, the organization's responsibility goes beyond its corporation, treating CSR as the business people's obligation to pursue policies and take decisions and actions in favor of society's objectives and values.

In this way, Bowen comes to be considered the father of corporate social responsibility by many researchers. The historical analysis imposed still presents the expansion of the concept when it gains new contours, expanding the area's vision. Keith Davis contributes by introducing voluntariness to this theme, stating that men's decisions go beyond direct economic and technical interests [20].

In 1963, the ideas of justice, citizenship, and ethics began to be discussed more in the corporate environment, causing Joseph W. McGuire to bring the concept of corporate social responsibility to the fore. It reinforces the idea that organizations are part of a whole that makes up society and, thus, have a responsibility to everyone [21].

Since the 1970s, several productions of concepts and discussions on this theme have developed. [21] also includes in this relation the treatment of philanthropy and relations with the community, noting that companies view the public's perspective of interest as a matter of concern. The Economic Development Committee discussed highlighted subjects in 1971, particularly the Social Responsibilities of Business Corporations, stating that three prominent circles explain all production:

- First circle: as being more internal, focused on the efficient execution of the economic function, production of goods, quality, jobs, and growth;
- Second circle: the economic function with sensitive knowledge of changes in values, prioritizing society;
- Third circle: more external, dealing with the responsibility of companies, assuming the involvement of activities to improve the social environment.

In the 1980s, according to [21], other themes emerged from those discussed in the 1970s: corporate social responsiveness, social and public responsibility policies, business ethics, and the theory of stakeholders.

[14], when dealing with the subject of this theory, it highlights the word's etymology as something fundamental. The term "stakeholder" refers to individuals or organizations with economic value, regardless of whether they assume responsibility for a specific value that will undergo distribution following the resolution of a particular event. With this, stakeholder theory describes which agents serve as stakeholders of a given company or institution. It proposes methods that administrators should use to follow through with appropriate actions to comply with the interests of these agents.

Thus, the company must convert the invested amount into inputs and use them to produce products that have the potential to be sold in the market, generating a financial return. Following this line, the theory proposes a strategy that aligns the economic view of resources with the economic view of the market, incorporating a sociological and political view of society.

Nevertheless, [22] makes one of the main contributions in this last period, treating social responsibility as a process rather than a set of organizational results. CSR becomes the theory discussed and debated by the academy on this theme, practiced by the institutions in the corporate day-to-day, highlighting the managerial criteria in decision-making.

Soon, there is a strong and growing environmental concern. In 1987, in the Brundtland Report, coordinated by the then Prime Minister of Norway, Gro Harlem Brundtland, the World Commission on Environment and Development, disseminated the idea of sustainable development. In this CSR environment, the report entitled *Our Future* highlights the importance of the present need without compromising future generations [23].

Following this historical panorama, [24] revisits essential concepts such as legality, public responsibility (where companies face penalties for their social and environmental impacts), and managerial criteria (where decision-making is grounded in moral criteria).

[17], in his studies, analyzes that globalization is responsible for this phenomenon's rapid growth. He relates the increase in purchasing power of small private, transactional, and multinational groups with income concentration and significant social exclusion. Thus, from the perspective of the public impacted by the organizations, there is an expansion on a global scale because of the need for socially responsible action.

In 2010, in Brazil, for example, ISO 26000 for social responsibility was created, involving 450 specialists from 99 countries, contributing to a set of criteria that led to a consensus on how companies should act to be socially responsible, setting guidelines common goals, guiding all organizations towards this purpose [25].

[14] further aligns with his studies that companies began to feel pressure from their partners to be more concerned with stakeholders. For example, on the stock exchanges, it is perceived that decisions have little impact on those involved or interested parties. It shows that the price ratio of a share after a significant event affects both the environment and the company's internal issues or other sensitive points in society.

As a result, the author, as mentioned earlier, points out that there is a more excellent perception of the social and environmental impact, with the need for investments by companies aligned with the theme. Soon after, the ESG agenda began to gain momentum. There is a concern with valuing companies, the well-being of stakeholders, and total social interest.

Still, considering the premises set forth by [14], one can mention the inclusion of socio-environmental issues in companies' portfolios and the focus on the outcomes achieved in decision-making. This focus aims to prevent environmental and social harm, as seen in organizational accidents resulting from neglecting necessary reviews, treatments, and actions to address potential errors that might arise.

2.3. The Color Washing Phenomena: Green, Rainbow, Brown, and Whitewashing

Greenwashing, also referred to as "greenwashing," is a term that has gained significant traction in recent years. It serves as a cosmetic alteration undertaken by companies aiming to conceal their true intentions regarding the organization's stance on socio-environmental responsibility as perceived by society.

The "sold" image of the company as value and economic growth and concern for the environment is that it practices socio-environmental solutions, but this is not exactly what happens, as verified by experts [18]. This debate began in the 1990s in the United States due to the circulation of expressions such as "sustainable," "eco-friendly," "environmentally correct," and "green" associated with products and services that many times were not related to the good practices, which can be something very superficial and without real impact on the environment [4].

Therefore, the Federal Trade Commission (FTC) guides were created in the United States with green marketing "Green Guides" requirements to contain these frauds. In Brazil, there is no regulation similar to the American one; however, companies are subject to the Consumer Protection Code, particularly the articles dealing with misleading advertising [26].

Currently, instances have come to light where corporations employ self-generated reports founded on fictitious data to cultivate a favorable image in front of the market, society, and their respective stakeholders, thereby enhancing their perceived value. Companies engage in this practice within standalone ESG reports needing consistent social and environmental records. The great popularity of ESG has made organizations look for more accessible means, disguising true corporate interests, neglecting activities, and using social responsibility as a marketing gimmick, as seen by [27].

Asserting that a product is "green" without substantiating its environmental claims, intending to attract investors and customers, and often displaying this information on packaging or in service promotion, even when knowingly false, results in real harm and non-compliance with legal standards. Such actions violate transparency and truthfulness norms related to information, and they also create

unfair competition in the market against organizations that genuinely engage in proper activities - hence, consumers ultimately experience deception, as indicated by [27]. In this way, companies that perform greenwashing, for the most part, aim to bring greater profitability in a smaller space-time without significant expenses.

Today, greenwashing has been considered one of the most destructive practices practiced in the market, as it harms, by deceiving, consumers and investors, including society as a whole. Society has been very concerned with issues related to the social and environmental environment, and many have avoided directing their resources to companies that do not comply with ESG practices [1].

In this way, [1] still perceives that the failure to seek loyal and legal practices violates the professional ethics of private law, harming the entire financial market, as it causes long-term losses that are difficult to reverse when identified. It is worth emphasizing the government's importance in creating punishment methods through fines for companies that do not adequately follow the regulations in force on this subject. Through punishments, companies will bring the desired results. However, it is also perceived that the more regulation, the greater the strategies to circumvent the law, with less effectiveness.

Therefore, when common sense aligns with cultivating an ethical intent grounded in awareness of sound legal practices, the outcomes yield advantages for the community. Voluntary endeavors foster a moral consciousness that transforms social conduct alongside generating favorable financial outcomes [27]. According to [4], the best governance practices added to corporate ethics, and good socio-environmental actions, with responsibility and transparency, become essential for economic and strategic health in business, with excellent chances of being perpetuated in time.

Rainbow washing, or Pinkwashing, is a movement practiced by many companies to minimize diversity related to gender choices, helping, in a way, LGBTQIA+ communities [28]. According to the [28], the sustainable development goals in Brazil (SDGs) have become a global call to eradicate several issues, and one of them would be to equalize the issue of gender equality in society, not only in companies but also in society community, as highlighted in the 2030 Agenda.

Whenever the month of June arrives, many companies change their logos, adding the colors of the rainbow to raise this flag. However, does it work positively for the LGBTQIA+ community? This trend is often seen as superficial, making it difficult to understand the real situation of those involved in this issue, as [29] described.

In the case of Brownwashing, it applies to all those black, brown, indigenous, and non-ethnic groups. Like the other cases mentioned above, these are actions of companies in which, in a disguised way, they try to implement practices to give strength to this group of people with the support of society. Nevertheless, they must act correctly with these people in the organization's day-to-day, not equalizing salaries or promoting those who deserve it [28].

In the case of whitewashing, it is when a particular organization, after a particular tragedy, tries to disguise what happened through another action; For example, a fire where people are injured, and after that, the company carries out activities of donating supplies to orphanages, advertising as a "good deed," without paying due compensation to the victims of the accident [29].

Thus, it is clear that many organizations try to make up a situation through so-called color washing, trying to promote actions to gain popularity with society and thus gain market share. It harms the market and invalidates the real intention of the CSR and ESG movements, which aim to develop work that will benefit society, organizations, and the world's future [30].

We will not delve into these subjects further to ensure we stay focused on the debate between CSR and ESG. However, the importance of and the vast field available for research and study to address and comprehend the challenges within this realm is evident. In this manner, companies and society should discuss how to address the issues related to these matters in the coming years.

2.4. The Influence of Social Media on the Corporate Governance Environment

According to [31], communication is a natural characteristic of human beings, being well intermediated by the media that provide new forms of expression, which can be through sounds, texts, and images. Another way of characterizing the word "media" is all the support a physical medium can

provide, whether through VHS tapes, CDs, DVDs, or other means of propagation such as radio, television, and newspaper. Therefore, regarding its nature, through printed, electronic, and digital media.

In other words, according to [32], media is every mediator system that relates man or technology to create, store, and exchange information among all those involved and interested. Thus, it is clear that the advancement of technology has also made information better disseminated at all times and that relationships between people and organizations have become closer, bringing ideas and opinions about different events closer together, as seen by [33].

[34] points out that social media are another tool in the continuous communication process between the whole society, considering organizations and people, diversifying opinions, and disseminating information, which may or may not shape a group, or community, in addition to being a source of research and studies.

Still following this line of reasoning, [35] stresses in his studies that communication is a basic need that accompanies human beings from birth. Communication involves the development of various strategies to express feelings, opinions, desires, and needs. Social media, in the digital-technological field, such as using the Internet on computers and smartphones, have become an excellent tool for this and are currently paramount.

Given the above, [36] also verifies the impact of social media on the population with the continuous use of social media. The population's need to communicate is continuous, causing impulses and people's dependence on these tools. Information disclosed by celebrities, organizations, and digital influencers becomes debates and models of thought and emotions when well discriminated, trained, with regulated sources, resolving doubts and offering the exchange of criticism subject to corrections when well highlighted. Even so, social media can become a realm in individuals' lives requiring interpersonal relationships and physical interactions, potentially leading to societal psychological issues.

[34] also defines that social media influences companies and their attitudes in negotiations, dissemination of information, and day-to-day internal and external activities because of the image they want to pass on to the population. This influence is perceived daily as a thermometer of society's opinions concerning various subjects and themes, being able to verify the reflection and result of its actions almost immediately, without the need to implement more elaborate field research, avoiding the waste of time when it comes to something more superficial or immediate. Such influence is also present in many organizations that must create, review, and program new means of communication with their stakeholders to develop decision-making forms that must consider how individuals access information.

Another point to consider is the so-called "mass media" from newspapers, magazines, cinema, and television. Today, applications also use these tools to spread information, making mass communication through podcasts, posters on social media, and Twitter, among others, as [34] exposed.

Companies widely use Twitter to disseminate and retransmit articles related to specific topics mentioned or published in other media, for example, on the Internet. As exposed by the company [37] on its website, a great way to promote it would be through visual aids. With good images as part of the organizational campaign, more people can be attracted and thus publicize a brand, opinion, and various information, giving "up" in a particular event.

According to the Brazilian Institute of Corporate Governance [38], the basic principles of corporate governance permeate all practices of the 'Code of Best Practices of Corporate Governance' and its better adaptation and implementation to organizations' policies. Therefore, it is essential to remember that these practices include: Transparency, Equity, Accountability, and Corporate Responsibility.

When using tools such as Twitter, it is clear that there is a need to correlate the information provided with the good practices of good corporate governance indicated by the IBCG, maintaining reliable data and pre-established information disclosure policies, preventing partners and investors are not penalized for misinformation, also preventing them from being disclosed prematurely, preserving what is said to be confidential, to prevent asymmetries and leakage of relevant or privileged information that affect organizations or any strategic action of companies, as adopted by the Code of Best Corporate Governance Practices at [39].

For [35], it is possible to perceive that Information and Communication Technologies (ICT) have increasingly gained space in the proliferation of content due to the ease of access by the population. It generates value and develops new practices, norms, and rules regarding governance.

With the current need for a better world, with education, health, and safety programs that add value not only to companies but to society as a whole, organizations have developed various advertising and marketing actions to meet this need in the present with a long-term vision [33]. This continuity reflects the organization and the need for a more dignified society, with more apparent objectives in its activities, transparency, and equity in the business, without leaving aside social and environmental issues.

3. Data and Methodology

The research aimed to analyze the evolution of the debate on CSR and ESG on Twitter. We employed a descriptive, quantitative, and qualitative approach to achieve this objective. In the qualitative approach, the most common and popular opinions and characteristics will be verified based on engagement rates of the most used words in the general context practiced on Twitter concerning the subject studied. Based on this, we will quantitatively investigate the aspects observed earlier.

To achieve the results, as there is no defined target audience, it was decided to use social media for data collection. The choice was made due to the great popularity and availability of concrete and current opinions, in addition to the transparent and immediate observance that one can have and, according to [40], because it is a place of construction of public opinion.

For the research, we chose Twitter since it is possible with this social media to collect information in a more accessible way, considering that it circulates information more openly due to the simultaneity of its publications. According to [40], society can express its thoughts by exchanging information through small texts, contributing to the debate on various topics.

In addition, according to [25], Twitter is a platform that allows the publication of short but relevant content with easy access to current trends by associating different types of content with published and disseminated hashtags. Twitter also allows circulation in addition to Tweets, reposts by Retweets actively, and execution of mentions through the '@,' making the platform increasingly democratic and public. In this social media, the character limit is 280 per Tweet. Its contents are usually objective and focused on specific subjects, facilitating search queries or reuse on different platforms where users want to make the same publication.

To extract the information from the Tweets, an API Web Crawler developed in Python was used to collect the initial research data. After that, we processed data using R programming to refine the information. According to [41], a Web Crawler is an application developed to automatically extract data and access information from internet pages through copies found on the visited pages, widely used by search engines such as Google.

For this study, in the Web Crawler, we intended to base on a more advanced and refined search on Twitter in the three main languages (Portuguese, English, and Spanish) to verify the presence of this theme around the world for identification and extraction of Tweets that contained the words CSR, RSC (the same as CSR, but in Portuguese and Spanish) and ESG, in addition to those that presented contexts similar to the theme between the period of creation of Twitter until 2022. year for calculating two indices: (1) Popularity = Number of likes ÷ Tweets and (2) Virality = Number of Retweets ÷ Tweets, demonstrating public interest in the subject. After verifying and calculating the evolution of this engagement over the period studied, we understand the fluctuations of publications made, thus aiming to identify the increase or decrease in the relevance of the subject studied.

In the next point, we developed a treatment of the content collected through the API Web Crawler with Phyton, treated by the 'R' programming, thus eliminating the unnecessary part of the search for a more qualitative approach, listing the most relevant words. Example: connecting words, or those in the same context as others already identified, enabling the identification of the main terms most present. For this purpose, we will determine a sparseness index of 99%, which implies cutting the words appearing in less than 1% of the Tweets.

The sparseness index, or scarcity index, is used to eliminate words or objects that appear less frequently, and in this case, in the collected publications, being discarded from the analysis because it is considered of low impact, in addition to being considered meaningless for the study (called stop words), being present in sentences only to give meaning or contextual value.

In this way, we unfolded the results, identifying which terms became more present within the searched period and classifying their words according to their similarities. With the segregation of the identified words, through quantitative analysis, with qualitative understanding, it is intended to understand how individuals perceive subjects such as CSR and ESG employed by organizations and their reflections in society in Portuguese, English, and Spanish.

4. Results and Discussions

4.1. Engagement Index (Popularity x Virality x Number of Tweets)

The intention is to demonstrate a general overview of the evolution of the debate in this first analysis. The themes followed the North American trend for all the languages. The following sections will evaluate the particularities of the Spanish and Portuguese languages.

In Table 1, it is possible to observe that searches with the "hashtag" for the term CSR had a more significant impact in terms of popularity and Virality, as they began to draw more attention earlier than the word without the "hashtag" that is, since 2010 it has presented a more accentuated growth of both indices (popularity of 0.147 and Virality of 0.051 with 19,599 Tweets). For the search without the "hashtag," it is observed that 2018 initially presents a more accentuated growth of both indices (popularity of 0.055, Virality of 0.312, and 64,631 Tweets), with more Tweets compared to 2017.

Table 1. Corporate Social Responsibility Engagement Index in English.

Search by CSR				Search by #CSR			
Year	Popularity	Virality	N° Tweets	Year	Popularity	Virality	N° Tweets
2007	0	0,033	30	2007	0	0	0
2008	0	0,044	410	2008	0,057	0	53
2009	0,017	0,077	9.171	2009	0,088	0,021	14.559
2010	0,147	0,051	19.599	2010	0,055	0,312	64.631
2011	0,183	0,041	24.345	2011	0,079	0,406	104.699
2012	0,252	0,062	29.956	2012	0,082	0,406	159.113
2013	0,306	0,213	29.436	2013	0,233	0,486	158.845
2014	0,421	0,399	31.912	2014	0,530	0,597	159.318
2015	0,525	0,602	37.375	2015	0,723	0,731	163.768
2016	0,491	0,847	37.934	2016	1,149	0,98	142.468
2017	0,697	1,433	32.314	2017	1,624	0,894	129.549
2018	1,118	2,818	39.027	2018	2,283	1,017	115.396
2019	1,388	4,428	34.608	2019	2,986	1,044	93.273
2020	4,718	1,342	33.139	2020	3,111	1,001	66.791
2021	5,704	1,593	24.401	2021	4,244	1,213	50.170
Total	1,265	1,228	383.657	Total	1,127	0,715	1.422.633

Note: Data from 2022 collected until September. Popularity = Likes/Tweets; Virality = Retweets/Tweets.

Source: Developed by the Authors.

Around 2010, some factors contributed to awakening the interest of social media in CSR. Some relevant facts include, for example: growing concern with socio-environmental issues like in United Nations Conference on Climate Change - COP15 - in 2009, growth of the environmentalist movement "Fridays for Future" led by activist Greta Thunberg with growth at the end of 2009; increase in public awareness with the documentary "An Inconvenient Truth" starring former Vice President of the United States Al Gore, released in 2006, continued to influence public opinion and generate discussions on the subject; corporate scandals and lack of trust in business (BP and the Gulf of Mexico

oil spill in April 2010; Toyota and vehicle recall in 2010; Goldman Sachs and the Abacus case in 2010; Hewlett-Packard and the espionage case also in 2010); among others.

In Table 2, the ESG repeated the pattern seen in the CSR of more significant popularity for the search term with the "hashtag." For both cases involving ESG, the year 2015 can be perceived as being the most accentuated growth of both indexes, both for ESG (popularity of 0.545, Virality of 0.818, and an increase in the number of published Tweets of 22% compared to 2014) and #ESG (popularity of 1,326, Virality of 1,246, with a significant increase in the number of published Tweets of 41.88% compared to 2014).

Table 2. ESG Engagement Index (ESG) in English.

Search by ESG				Search by #ESG			
Year	Popularity	Virality	N° Tweets	Year	Popularity	Virality	N° Tweets
2009	0	0	12	2009	0,018	0,012	164
2010	0,054	0,071	56	2010	0,06	0,226	1.572
2011	0	0,333	45	2011	0,04	0,204	6.120
2012	0,05	0,363	80	2012	0,084	0,328	13.030
2013	0,15	0,271	133	2013	0,238	0,547	15.880
2014	0,239	0,427	117	2014	0,56	1,013	14.950
2015	0,545	0,818	143	2015	1,326	1,246	21.212
2016	1,057	1,166	175	2016	1,282	1,166	31.397
2017	3,952	3,195	231	2017	1,484	1,281	40.922
2018	5,51	2,106	822	2018	2,129	1,056	50.370
2019	3,106	1,204	1.147	2019	2,452	0,947	66.185
2020	3,586	1,186	1.554	2020	2,875	1,035	101.918
2021	5,655	2,029	2.756	2021	4,448	1,325	184.019
Total	4,192	1,614	7.271	Total	2,782	1,114	547.739

Note: Data from 2022 collected until September. Popularity = Likes/Tweets; Virality = Retweets/Tweets.

Source: Developed by the Authors.

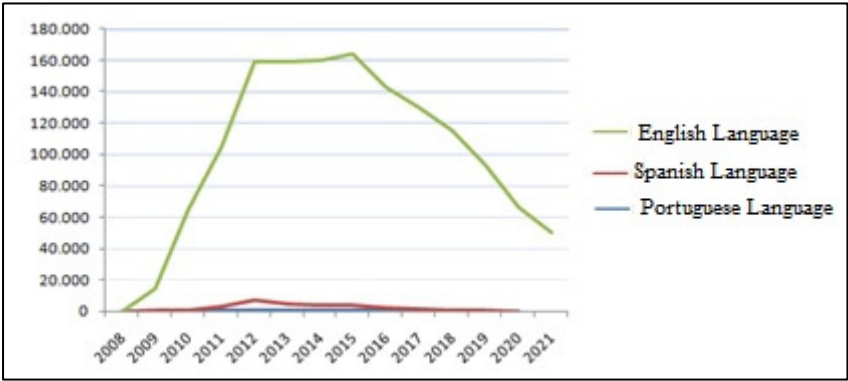
Around 2015, some factors contributed to awakening the interest of social media in ESG. Some relevant facts include, for example: increased awareness of social and environmental issues (Paris Agreement in December 2015; Black Lives Matter Movement in 2016; Sustainable Development Goals (SDGs) in 2015); corporate scandals and lack of transparency (Volkswagen scandal in September 2015, Wells Fargo scandal in 2016 and even Petrobras scandal that reached its peak in 2016); just as the rise of younger generations, such as millennials and Generation Z, has brought a new mindset regarding corporate social and environmental responsibility.

Comparing Tables 1 and 2, it is still possible to note that the decline in popularity of the RSC in 2019 follows the gain in popularity of the ESG, which begins a significant climb in 2020 and 2021. We believe that some factors may have contributed to this issue, such as: the perception of change in terminology and expansion of scope (the term ESG may have been considered more current and comprehensive compared to CSR by individuals); increased attention to sustainable investing, i.e., investors began to consider ESG factors when making investment decisions, as well as with the creation of the significant ESG funds in 2019 (such as BlackRock's Global Impact Fund, J.P. Morgan's Global ESG Enhanced Index Fund, Vanguard's ESG U.S. Stock ETF and State Street Global Advisors' ESG Dividend ETF); global social impact events (Global Climate Strike in 2019; and UN Climate Action Summit in 2019); as well as a growing trend of publications of sustainable reports on exchanges (in Brazil, for example, it was observed in [16]).

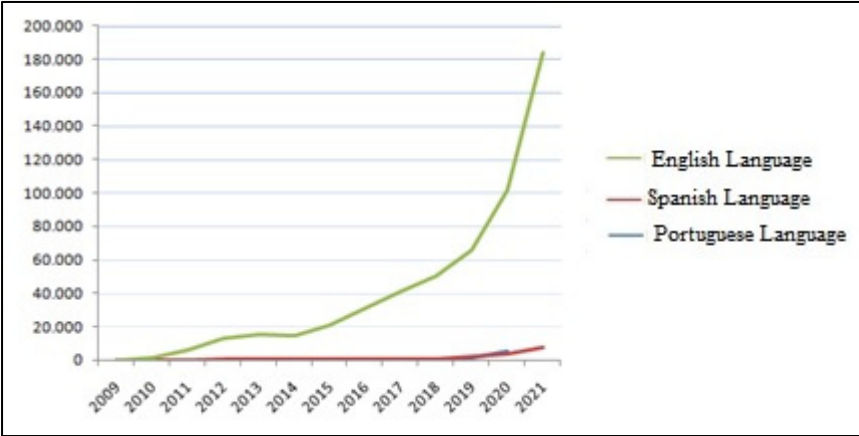
4.2. Analysis of the Words that Appeared Most Often in Collected Tweets

When we analyzed the collected words individually, we noted that, in the general total during the period, in Portuguese, the term #ESG appeared with a general percentage of 58.20%; in Spanish, the RSC appeared at 58.78%; and in English, the #CSR with 50.14 %.

It is also interesting to check the history of total Tweets in the three languages surveyed considering the themes #CSR and #ESG (the most popular ones with the use of "hashtags") shown in Graphs 1 and 2 (which reflect the information presented in tables 1 and 2).



Graph 1. #CSR—Number of Tweets. Source: Developed by the Authors.

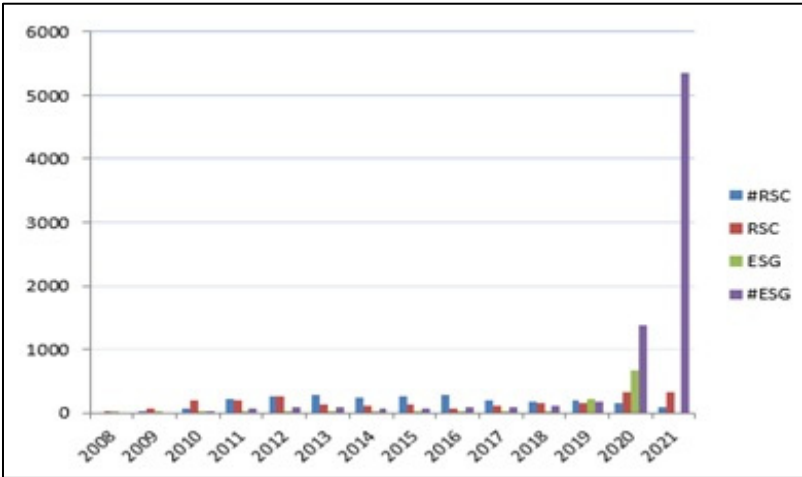


Graph 2. #ESG—Nº Tweets. Source: Developed by the Authors.

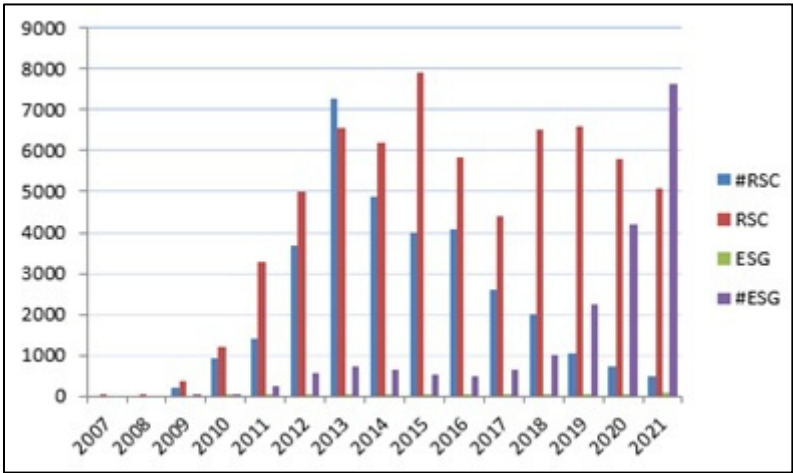
By further exploring the number of Tweets in Portuguese, Graph 3 shows greater prominence of #ESG compared to the other words, mainly from 2020, considerably in 2021. We noted that Brazil, even before the pandemic period, did not highlight issues involving ESG issues. This interest is considered essential within the population, with a focus on well-being, healthy living, and ethical interpersonal relationships being prioritized. Additionally, there is an emphasis on the necessity of environmental care to ensure the coexistence and perpetuity of society within nature.

Concerning the number of Tweets in the Spanish language, Graph 4, we observed that the RSC theme had a greater prominence. While #RSC Retweets decreased with time, there was an increase in ESG popularity, similar to what we observed in the previous case seen in Graph 3.

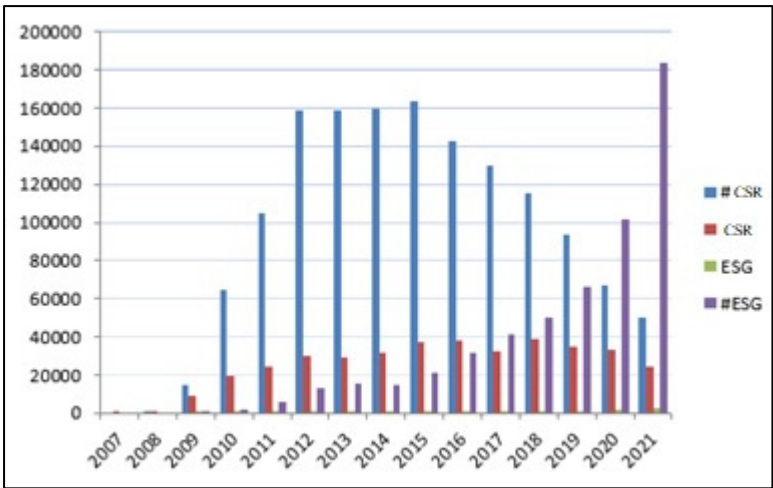
Finally, in the English language, it was noticed in Graph 5 that the #CSR theme had a greater prominence, however, showing a continuous decline since 2015, when the #ESG was introduced and began to gain strength to surpass it over the years last analysis periods.



Graph 3. N° Tweets (Portuguese). Source: Developed by the Authors.



Graph 4. N° Tweets (Spanish). Source: Developed by the Authors.



Graph 5. N° Tweets (English) Source: Developed by the Authors.

Regarding the formation of word clouds, the research identified that over time it gained greater sympathy with the theme involving subjects such as environmental responsibility and corporate governance by society, incorporating in each person the interest in actions involving ESG, as seen in Figure 1.

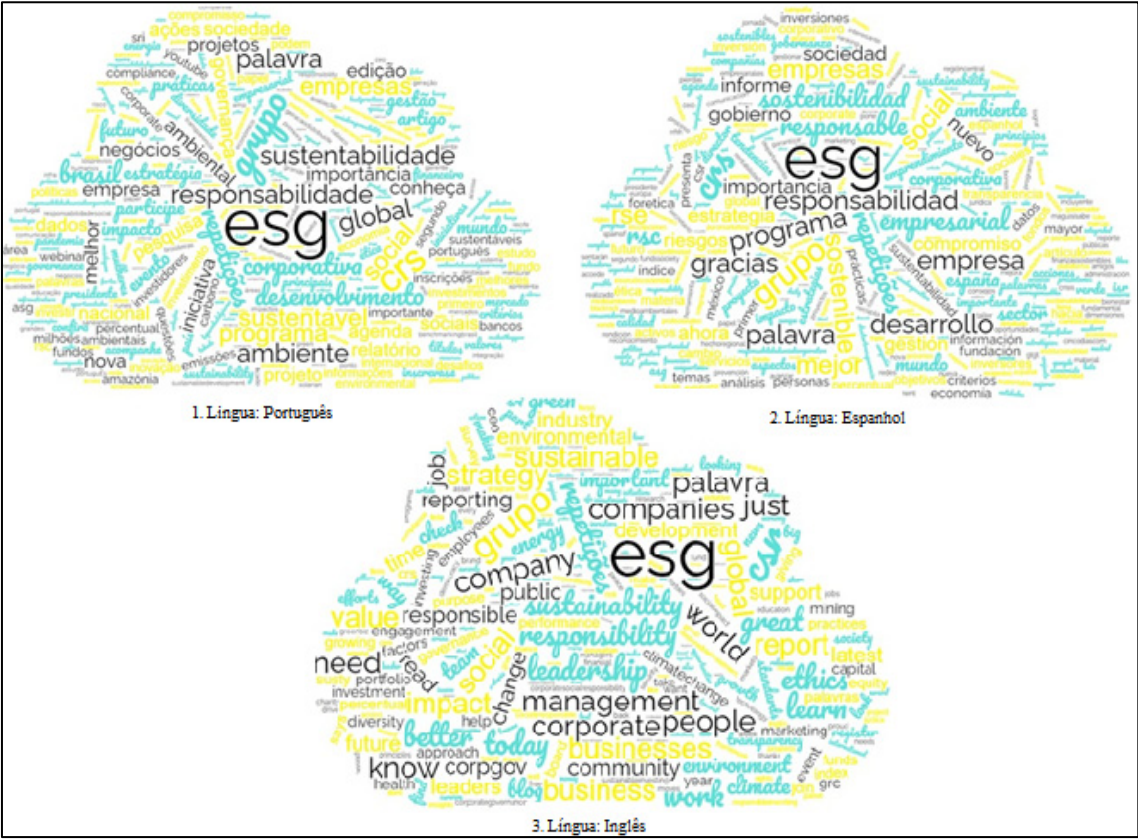


Figure 1. Word Clouds in the three languages. **Source:** Developed by the Authors.

When analyzing the clouds in Figure 1, a growing trend in the search for issues related to well-being, health, environment, governance, and ESG is evident, indicating a growing population concern with these themes. However, it is interesting to note that there is a notable absence of the social aspect represented by the letter "S," which does not appear with the same force as the other concepts.

This social aspect gap can be attributed to a series of factors. A possible conjecture is that, although environmental and corporate governance issues have gained increasing prominence in recent years, concern with the social aspect may have been overshadowed or underestimated. It could result from a lack of awareness or a lower priority on the public agenda and in discussions on social media.

Another conjecture is that, although social issues are equally important, they can be more complex and multifaceted, making it more challenging to address them and engage the population meaningfully. Furthermore, the lack of engagement concerning the social aspect may reflect a more individualistic view or a lack of consensus on priority social problems.

However, it is essential to highlight that this is just a conjecture, and further investigation and qualitative analysis of social media interactions would be needed to understand better the lack of concern for the social aspect and its implications.

5. Conclusions

The research aimed to analyze the evolution of the debate between CSR and ESG on Twitter from the user's perspective since its creation until 2022 to understand how society perceives this theme.

The results showed that society's perception of the debate between CSR and ESG is very present in the public's daily discussions, showing a growing concern about the Environment, Society, and

Governance, dealing with issues relevant to various daily problems, both in companies and in the community worldwide, when checking the three main languages such as Portuguese, English, and Spanish.

Thus, a substantial question was raised in the perception of the need, through reflection, that it is necessary to change thoughts, with the possibility of changing old practiced activities, adapting and improving them to result in a better world. This study contributes to exploring this discussion in the Brazilian and global context, offering evidence about the expectations generated by public opinion on the subject in social media, where Twitter users generate comments spontaneously and sincerely.

After collecting data, it was possible to verify certain aspects regarding engagement – Popularity x Virality x Number of Tweets – in the three languages studied, where the rise of CSR in this media environment was noted in 2010, with the subsequent emergence of ESG in from 2015 to mid-2019, it was possible to perceive the decline in popularity of CSR to the detriment of the growth of ESG, as previously pointed out, one of the explanations may be the issue of originality and the perception by the user that ESG is a broader concept than the previous one.

For the terms identified for the research and the number of different users, we have the following: for the researched theme CSR in Portuguese, 1,580 different users were traced, while in Spanish, 30,824, and in English, a total of 176,594.

Regarding the theme CSR with hashtag #CSR, 1,149 users were verified in Portuguese, 5,737 in Spanish (both with the respective equivalent RSC), and 156,824 in English. For ESG, data were collected from 609 different users for Portuguese, 216 for Spanish, and 5,131 for English. While for the term #ESG, we saw 1,670 users for Portuguese, 3,235 for Spanish, and 56,263 for English.

In this way, it is clear that the most significant contributions and concerns regarding the debate between CSR and ESG take place in the English language, leveraging achievements not only on the part of society but also actions by companies to resolve issues seen as “worrying” in the social, environmental and governmental spheres, to transform the future of everyone involved for the better, which may be an internal or external factor to the organization, which will influence not only the perpetuity of any business but also reflected in the health of future generations.

Thus, we have shown that in the last decade, there was a remarkable evolution in the debate on this theme, CSR and ESG, discussed in society, where initially there was a more significant concern with the social responsibility of each one within each organization, it evolved to encompass the responsibility of individuals towards others, extending beyond the realm of business, but also in their respective communities experienced daily, outside the organization, having better empathy, highlighting various subjects such as religion, sexuality, well-being, race, politics, and the mutual respect sought by each.

Regarding sustainability issues, [42] shows that more assertive metrics and forms of measuring ESG in organizations would be needed. In this way, it would be possible to perceive how these practices bring value to companies, modifying cultures and actions and resulting in better applications. Thus, verify if the ESG is sustainable and to what extent this happens, highlighting the different types of activities in an institution.

Concerning governance, we found that the debate evolved into the concern of organizations about financial transparency and professional ethics, highlighting actions such as audits (internal and external), due diligence, and accountability that brought greater security to shareholders, managers, and others. Stakeholders.

As a suggestion for future research, we recommended thinking of a study developed with the analysis of the opinion of researchers and professionals in the area by verifying the collection of data obtained with the perception of public opinion on this theme to align the interests of the institutions, public and private, with society, resolving and dealing with issues such as the care to be taken with the environment, with society and with the management of companies, to ensure organizations' perpetuity without neglecting fundamental issues that require careful and attentive treatment, while taking into account norms, regulations, and ethical considerations within each aspect under discussion.

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Abbreviations

Abbreviation	Description
API	Application Programming Interface
CD	Compact Disc
CSR	Corporate and Social Responsibility
DVD	Digital Versatile Disc
ESG	Environmental, Social, and Governance
IBGC	Instituto Brasileiro de Governança Corporativa
ICT	Information and Communication Technologies
RSC	Responsabilidade Social e Corporativa
SDGs	Sustainable Development Goals
UN	United Nations
VHS	Video Home System

References

1. Nascimento, J. O. ESG: O Cisne Verde e o Capitalismo de Stakeholder. A Tríade Regenerativa do Futuro Global (1ª ed.). São Paulo: Thomson Reuters, Brazil, 2021.
2. Lacombe, F., & Heilborn, G. Administração: Princípios e Tendências (3ª ed.). São Paulo: Saraiva, Brazil, 2015.
3. Teodósio, A. T. F. Responsabilidade Social Corporativa: A Percepção Da População Portuguesa. Dissertação de Mestrado, Universidade de Lisboa. Instituto Superior de Economia e Gestão, 2018.
4. Cruz, A. Introdução ao ESG: Meio Ambiente, Social e Governança Corporativa (2ª ed.). São Paulo: Scortecci, Brazil, 2021.
5. Gomides, J. E., & Silva, A. C. O Surgimento da expressão “Governance”, Governança e Governança Ambiental. Revista de Ciências Gerenciais 2009, 13(18), 177-194.
6. Porter, M. E. Estratégia Competitiva: Técnicas para Análise de Indústrias e da Concorrência (2ª ed.). Rio de Janeiro: Elsevier, Brazil, 2004.
7. Tenório, F. G., Nascimento, F. C. P., Fares, J., Ferrari, J., Villar, L. B., Barros, R. P. M., Hilst, S. M., Lazari, S. Responsabilidade Social Empresarial: Teoria e Prática (2ª ed.). Rio de Janeiro: FGV, Brazil, 2011.
8. Finatto, C. As práticas de responsabilidade social corporativa no consórcio qualenv: uma análise alinhada com os objetivos do desenvolvimento sustentável e o ESG na UniSul. Dissertação de Mestrado, Universidade do Sul de Santa Catarina, 2022.
9. Rubim, A. R. S. Responsabilidade Social Corporativa: Estudo de Caso em uma Geradora Privada de Energia Elétrica. Tese de Doutorado, Universidade Federal do Rio de Janeiro, 2021.
10. Elkington, J. 25 years ago I coined the phrase “triple bottom line.” Here’s why it’s time to rethink it. Harvard Business Review 2018, 25(1), 2-5.
11. Barney, J. B., & Hesterly, W. S. Administração Estratégica e Vantagem Competitiva: Conceitos e Casos (5ª ed.). São Paulo: Pearson Education do Brasil, Brazil, 2017.
12. Pacto Global. 2022. Rede Brasil. Available at: <https://www.pactoglobal.org.br/pg/esg> (accessed on 07 January 2023)
13. Belinky, A. Seu ESG é sustentável? GV-Executivo 2021, 20(4), 37–44.
14. Loureiro, N. E. Da Governança Corporativa Ao ESG: Green Bonds Como Exemplo De Concreção Das Premissas ESG. Trabalho de Conclusão de Curso, programa de Bacharelado em Ciências Jurídicas e Sociais, Curso de Direito da Universidade do Vale do Rio dos Sinos – UNISINOS, 2021.
15. Moche, I., Nogueira, E., Figueiredo, J., & Moraes, L. O impacto ESG no desempenho das empresas listadas no Índice Bovespa: uma dinâmica quanto ao seu valor agregado. Trabalho de Conclusão de Curso em Economia, Universidade São Judas Tadeu, São Paulo, SP, 2021.

16. Carvalho, F. S. *Percepções Quanto Às Contribuições Da Responsabilidade Social Corporativa Para O Fortalecimento Do Compliance Em Organizações*. (Master's Thesis). Universidade Federal Fluminense, 2018.
17. Tkatch, J. R. V. O início da responsabilidade social corporativa segundo Carroll e a evolução dos conceitos até a ISO 26000. In: *Engajamento Social*, Filho, J.R.F., Virginio, C.P., Quelhas, O.L.G., Neto, J.N.; Euduff: Niteroi, Brazil, 2021, v.1, 39-59.
18. Tachizawa, T. *Gestão Ambiental e Responsabilidade Social Corporativa: Os paradigmas do novo contexto empresarial*. 9ª Edição. São Paulo: Atlas, Brazil, 2019.
19. Bowen, Z. *HR, Social Responsibilities of the Businessman*. New York: Harper & Row, 1953.
20. Davis, K. The case for and against business assumption of social responsibilities. *Academy of Management Journal* 1973, 16(2), 312-322.
21. Carroll, A. B., & Shabana, K. M. The business case for corporate social responsibility: A review of concepts, research and practice. *International Journal of Management Reviews* 2010, 12(1), 85-105.
22. Jones, T. M. Corporate social responsibility revisited, redefined. *California Management Review* 1980, 22(3), 59-67.
23. Comum, N. F. *Comissão mundial sobre meio ambiente e desenvolvimento*. Rio de Janeiro: FGV, 1991.
24. Wood, D. J. Corporate social performance revisited. *Academy of Management Review* 1991, 16(4), 691-718.
25. Marques, V. *Redes Sociais 360: Como Comunicar Online*. 1ª ed., Lisboa: Conjuntura Actual, 2020.
26. Rotman, R. M., Gossett, C. J., & Goldman, H. D. Greenwashing no more: The case for stronger regulation of environmental marketing. *Admin. L. Rev.* 2020, 72, 417.
27. Sampaio, J. A. L., Fabel, L. M. T., & Ribeiro, L. G. G. *Responsabilidade Social Corporativa E Governança Socioambiental: As Empresas "Verdes" E A Criminalidade Corporativa*. Rio de Janeiro, RJ: Lumen Juris, Brazil, 2021.
28. UN. 2023. Sobre o nosso trabalho para alcançar os objetivos de Desenvolvimento Sustentável no Brasil. Available at: <https://brasil.un.org/pt-br/sdgs> (accessed on 22 December 2022)
29. Rodríguez-Ríos, A., & Pernias, P. L. Storydoing as an innovative model of advertising communication that favors an improvement in society. *Revista Latina de Comunicación Social* 2023, (81), 171-189.
30. Da Silva, M. M., Bernardo, C. H. C., & Junior, S. S. B. Relação entre características de greenwashing e lealdade dos consumidores: Uma revisão bibliográfica sistemática. *Research, Society and Development* 2020, 9(12), e16391210900-e16391210900.
31. Pereira, N. L., Menegali, C., Freire, P. S., Souza, M. V., Fadel, L. M. *Integração das Mídias do Conhecimento nos Modelos de Governança em Instituições de Ensino Superior*. In: *Anais do Congresso Internacional de Conhecimento e Inovação (ciki)*, Brazil, 2021.
32. Perassi, R. *Mídia do Conhecimento: Ideias sobre Mediação e Autonomia*. 1ª ed., Florianópolis: SIGMO/UFSC, Brazil, 2019.
33. Mahon, C. *A Psicologia da Mídia Social*. 1ª ed., São Paulo: Blucher, Brazil, 2021.
34. Nose, E. T. *A Mídia Social e a Governança Corporativa no Relacionamento com Stakeholders*. Dissertação de Mestrado em Administração, Centro Universitário das Faculdades Metropolitanas Unidas, São Paulo, SP, 2018.
35. Fermann, I. L., Ledur, B., Ribeiro Beneton, E., Schmitt, M., Goulart Chaves, J., & Andretta, I. Uso de internet e mídias sociais por estudantes universitários: um campo de estudo emergencial. *Ciências Psicológicas* 2021, 15(1), 1-11.
36. De Lima, M. A. G., Mendes, L. S. F., Machado, A. L. L. B., Freitas, M. C., Santos, T. R., Bezerra, A. D. C., Filho, L. S. S. Impacto das mídias sociais nas ações de educação em saúde voltadas à população. *Research, Society and Development* 2021, 10(2), e10810212231.
37. Twitter. 2022. O que fazer e o que não fazer com as imagens no Twitter. Available at: <https://business.twitter.com/pt/blog/do-dont-twitter-images.html> (accessed on 20 March 2023)
38. IBGC. 2022. *Governança Corporativa* 2022. Available at: <https://www.ibgc.org.br/conhecimento/governanca-corporativa> (accessed on 05 January 2023)
39. IBGC. 2015. *Código das Melhores Práticas de Governança Corporativa* (5ª Edição). Available at: <https://conhecimento.ibgc.org.br/Paginas/Publicacao.aspx?PubId=21138> (accessed on 15 April 2023)
40. Soares, F. B., Recuero, R. Opinião pública no Twitter: análise da indicação de Alexandre de Moraes ao STF. *Logeion: Filosofia da Informação* 2017, 3(2), 18-37.
41. Moraes, D. 2019. Web Crawler: saiba o que é e qual a sua relação com o Marketing Digital. Available at: <https://rockcontent.com/br/blog/web-crawler/> (accessed on 10 March 2023)
42. Belinky, A. Seu ESG é sustentável? *GV-Executivo* 2021, 20(4), 37-44.

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