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Review

A Systematic Literature Review on ESG during the COVID-19 Pandemic

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Abstract: Environmental, social and governance (ESG) issues have been investigated by scholars from several points of view. Although the epidemic of COVID-19 is recent, numerous scholars have analyzed its effects on ESG, making it difficult to systematize current knowledge. This generates the risk that the discussion will become stale. This study aims to provide a systematic literature review able to examine the combination of ESG and COVID-19 outbreak, to understand what the academics discovered. Eighty-five studies were systematically reviewed. We used a systematic literature review which is the tool that can ensure that all relevant data from the topic under investigation are considered. This approach is considered as the most comprehensive and rigorous one because it allows the creation of the advancement of knowledge of the specific topic. We identified five classes plus a residual one that accommodate the main topics analyzed in the literature (investment and stock returns, ESG in specific industries, ESG rating, gender studies, ESG reporting, and other). Our research highlights that most of the studies have been focused on the first three topics, sometimes reaching different or opposite findings, while only few studies have been dedicated on the other topics. Therefore, we state the need for more research into the ESG/COVID-19 combination in the fields of gender diversity and ESG reporting, and for more research able to understand the different findings of the other three identified topics.

Keywords: ESG; COVID-19; investments; stock returns; gender diversity; ESG reporting; ESG rating; systematic literature review

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1. Introduction

One of the aspects that several companies and operators in the sector are taking into consideration when defining corporate strategies is summarized in the acronym ESG (Environmental, Social, Governance). This represents a veritable new paradigm that seeks to channel and directs the aims of the homo economicus, which tend to be linked to self-interest and individual profit, towards objectives inspired by the interest of the community, in terms of the environment, inclusion and sustainability.

Recent literature [1] is confirming trends that show that a company that adopts strategies aimed at achieving objectives in line with ESG issues succeeds in creating greater shareholder value in the medium to long term.

The COVID-19 pandemic created ethical issues and exposed social issues that require new strategies and initiatives [2].

In this context, the academic world's attention to ESG issues has increased, so much so that since 2020, there has been a proliferation of academic articles on ESG and COVID-19 covering different areas of interest. The insights offered by the COVID-19—ESG report are manifold. On the other hand, when dealing with topics related to sustainability and the role that companies can play to improve their impact, material and social, on the planet, while also increasing their profits, it is inevitable to develop study topics that are interdisciplinary in nature and that may cover topics that are not necessarily relevant for academic and practical purposes.

For this very reason, an attempt has been made in this article to carry out a systematic analysis of the literature that may make it possible to identify which topics are worthy of accommodating the efforts of scholars, also taking into account the practical implications of the studies. In other words, a multitude of contributions have followed one another in a short period of time, reducing the holistic view of the subject with the risk of limiting the development of knowledge, especially since the risk of saturation of certain thematic areas has increased, leaving other areas of interest worthy of in-depth study unexplored.

Systematising the contributions produced to date may enable scholars to have an orderly view of what has been done so far, in order to understand in which direction to direct their efforts.

Therefore, this study aims to identify the areas on which researchers have focused their attention in order to bring clarity to this fragmented field and further advance scientific knowledge of the topic by outlining future research directions.

To achieve this goal, the research was carried out trying to address the following research questions:

- RQ1: How has the literature on ESGs advanced since the rise of COVID-19?
- RQ2: What are the main topics debated in the literature in the field of ESG practices during COVID-19?
- RQ3: What is the future for research in this field?

To achieve research goals and to advance scientific progress, the authors conducted a systematic literature review [3].

The aim of this work is to provide support for the literature on ESG in relation to COVID-19 by exploring the existing literature in this field, summarizing the essential features of the literature reviewed and identifying the main methods used to conduct research to date. The geographical areas, to which the authors belong to and the periods in which these studies were published, are also analysed.

After carrying out a systematic study of the topics addressed in the literature, the authors focused the research attention on the most analysed ones. After identifying the most suitable methodology for the purposes of the research, the authors verified an increase in production on ESG topics in conjunction with COVID-19 (RQ1) and identified the recurring topics that emerged in the literature from 2020 onwards (RQ2). Lastly, gaps in the literature were identified so that future work can be addressed in these areas (RQ3).

The paper is structured as follows: Section 2 is dedicated to explaining the methodological approach used to carry out this study; this section also specifies the process used to select the articles; Section 2.1 presents the process used to design the research framework. Section 3 presents the results of the analysis and is followed by a discussion in Section 4. In the final section, Section 5, conclusions are drawn, and future research directions are suggested.

2. Methodology

2.1. The Process Used to Design the Research Framework

To answer the RQs, the authors used the systematic literature review as proposed by Tranfield et al. [3], which is the tool that can ensure that all relevant data from the topic under investigation are considered. This approach is considered to be the most comprehensive and rigorous one because it allows the creation of the foundation for the advancement of knowledge [4].

To make the analysis replicable, the recommendations provided by Natalicchio et al. [5] were followed. In particular, keywords were initially identified to correctly target the search area in the databases, and then the criteria for exclusion of documents as well as the most scientifically relevant topics and subtopics were defined [6].

To analyze the ways in which the research analyzed the relationship between ESGs and COVID-19, the authors used "COVID" and "esg" as keywords. The keyword search was conducted using both the SCOPUS and Web of Science (WoS) databases, both widely used in the literature [7,8]. The adoption of both databases made it possible to ensure the quality of the publications used for the analysis and to consider the prevalent publications on the topic under study [9].

The keyword search for both databases was performed by limiting the analysis to "Title, Abstract, Keywords". This procedure allowed excluding articles where the keyword was used exclusively in the body of the text.

As for the extraction performed on the SCOPUS database, the search was refined by considering the academic field of reference of the studies [10]. Therefore, articles belonging to categories not related to the areas "Econ" and "Busi" were excluded from the analysis.

The application of these filters reduced the total number of articles to 78.

The keyword search on WoS, after applying the necessary filters to exclude search areas not of interest to the present work, identified 50 articles.

The extraction from the two different databases led to the inclusion of duplicates in the sample of articles to be analyzed, which were then eliminated. It was not necessary to remedy the problem of translation of the articles [11], as all the papers included in the sample were written in English.

The final number of articles analyzed was 85. Figure 1 describes the selection process used.

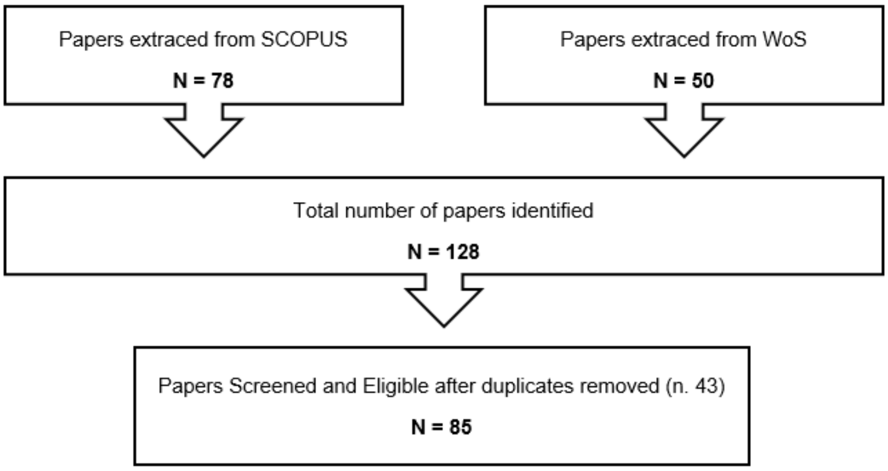

Figure 1. The procedure for selecting the eligible papers.

2.2. The Construction of the Framework of Analysis

To answer the first two RQs, the authors, since they worked independently and manually, had to establish strict guidelines necessary to eliminate as much subjectivity as possible in the classification of the studies analyzed and in the identification of the most recurrent study themes.

The authors therefore relied on a framework-developed by Paoloni and Demartini [12] to maximize the scientific rigor of the study that was appropriately modified to meet the objectives of the present investigation as carried out in the previous literature [13].

The framework is presented in Figure 2 and was defined as follows.

A. Focus of the article. The authors identified five classes plus a residual one that accommodate the main topics analyzed in the literature. The proposed taxonomy was based solely on ESG factors, as COVID-19 was dedicated a specific class, and is depicted below:

A1 Investment and stock returns: This category includes studies that have analyzed how ESG factors affect financial investment performance.

A2 Gender studies: It includes contributions that have analyzed ESG in the context of women's businesses.

A3 Reporting: The category accommodates studies that have analyzed how reporting is done with regard to ESG.

A4 ESG in Specific Industries: Includes studies that have analyzed ESG and its relevance within specific industries.

A5 ESG rating: This category includes contributions that have focused on analyzing ratings of ESG factors.

A6 Other: The authors outlined a residual class that accommodates studies that were not classified in any of the previous categories.

B. Phase analyzed. This category identified which phase related to the pandemic was analyzed by ESG scholars. Therefore, the following taxonomy was provided:

B1 Pre COVID-19.

B2 Post COVID-19.

B3 No focus.

C. Research method: The methodologies employed by the authors of the sample articles are classified according to the taxonomy defined by Paoloni and Demartini [12]:

C1 Qualitative research.

C2 Quantitative research.

C3 Research mix.

C4 Theoretical analysis.

C5 Other.

D. Geographical area studied. This class allows identification of the geographical area under analysis. Based on the analysis, the following areas were identified:

D1 North America.

D2 South America.

D3 Europe.

D4 Asia.

D5 Oceania.

D6 Africa.

D6 Comparative study. This subcategory includes studies that performed comparative analyses between two or more nations.

D8 None. Studies that did not concentrate analyses in specific nations were placed in this class.

E. Author affiliation. The last classification is aimed to understand the academic background of the authors, and, for this purpose, their affiliation was considered.

To carry out the classification of the analyzed studies, which was done by all authors, they used the inter-coder reliability, which guarantees the reliability of the classification procedure. In fact, this model considers the classification valid only if it is the same for different coders [14].

The articles in the sample for analysis were divided into three groups, and each group of articles was assigned to two authors who made an independent classification. Where there was a divergence between the classification made by the two coders, the classification was made by the third author [15].

A	FOCUS OF THE ARTICLE	B	COVID PHASE	C	RESEARCH METHOD
A1	Investment and stock returns	B1	Pre Covid	C1	Qualitative
A2	Gender studies	B2	Post Covid	C2	Quantitative
A3	Reporting	B3	No focus	C3	Mix
A4	ESG in specific industries			C4	Theoretical
A5	ESG rating			C5	Other
A6	Other				

D	GEOGRAPHIC AREA	E	AUTHORS AFFILIATION
D1	North America	E1	North America
D2	South America	E2	Europe
D3	Europe	E3	Asia
D4	Asia	E4	Oceania
D5	Oceania	E5	Africa
D6	Africa	E6	South America
D7	Comparative		
D8	None		

Figure 2. The analytical framework.

3. Literature Findings

Because the subject of the study are ESGs and COVID-19, the papers in the sample have been published since 2020; therefore, are all recent. The following will provide initial evidence regarding the classification made for each paper.

3.1. Article Focus

The prevalence of the papers analyzed dealt with the relationship between ESG factors and investments; of the 85 articles in the sample, 47% discussed how the use of practices aimed at sustainability increased the value of stocks and their returns. This analysis was conducted in different countries and using a quantitative methodology. Except for studies that were classified in the residual category "Other", another relevant stream of studies is those that examined ESGs in specific industries (see Table 1).

Table 1. Article focus.

Category	Category Name	N.	%
A1	Investment and stock returns	40	47.1%
A2	Gender studies	2	2.4%
A3	Reporting	2	2.4%
A4	ESG in specific industries	14	16.5%
A5	ESG rating	8	9.4%
A6	Other	19	22.4%
Total		85	100.0%

3.2. COVID-19 Phase

The analysis showed that 73% of the studies focused on the post-COVID-19 phase by making a comparison between what was happening before the pandemic and what was happening after it. Only a few studies focused on what was occurring exclusively in the pre-pandemic period. These studies mentioned the advent of COVID-19, but did not analyze its effects, merely pointing out facts and events that took place before the advent of the virus. The results of the analysis are highlighted in Table 2.

Table 2. COVID-19 phase.

Category	Category Name	N.	%
B1	Pre COVID-19	5	6%
B2	Post COVID-19	62	73%
B3	No focus	18	21%
TOTAL		85	100%

3.3. Research Methods

The most widely used research method in the literature that has analyzed the topics covered in this study, is the quantitative method (59%, n. 50 articles). This is followed by the qualitative method, used in 20% of the studies. The remaining approximately 20% of the studies used the mixed method (13%) or theoretical analysis (6%). On this point, it is represented that the results are in line with what is the role played by ESG factors in business, and from this perspective, it is possible to argue that the topic under study influenced the methodology used (see Table 3).

Table 3. Research methods.

Category	Category Name	N.	%
C1	Qualitative	17	20.00%
C2	Quantitative	50	58.82%
C3	Mix	11	12.94%
C4	Theoretical	5	5.88%
C5	Other	2	2.35%
Total		85	100%

3.4. Geographic Area Analyzed

Most of the studies conducted a comparative study across countries and about 12%, on the other hand, did not analyze any nation. Among the studies that analyzed specific nations, scholars concentrated in analyzing North America and Asia (accounting for 12% of cases, respectively), and the most-studied nation was the United States of America as shown in Table 4.

Table 4. Geographical area of analysis.

Category	Category Name	Detail		
D1	North America 12%	United States 11.8%		
D2	South America 2%	Brazil 1.2%	Mexico 1.2%	
D3	Europe 4%	Germany 1.2%	Spain 1.2%	Sweden 1.2%
D4	Asia 12%	India 4.7%	China 5.9%	Japan 1.2%
D5	Oceania 2%	New Zealand 1.2%	Australia 1.2%	
D6	Africa 0%			
D7	Comparative 56%			
D8	None 12%			
total	100%			

3.5. Authors' Affiliations

The analysis of authors' affiliations showed that researchers from many geographical areas analyzed the topic of this paper, confirming the global relevance of both COVID-19 and ESGs, as shown in Table 5.

Thirteen percent of the articles were authored by single authors, where 56% were written by authors with affiliations in the same nation, and 31% by authors with affiliations in different nations.

In overall terms, there were 211 authors who analyzed the topic under study and they came mainly from the United States (13%) and China (11%), although the geographical area from which the largest number of authors came is Europe, with 40%.

Table 5. Authors' affiliations.

E1	%	E2	%	E3	%	E4	%	E5	%	E6	%
North America	**16.1%**	**Europe**	**39.8%**	**Asia**	**33.6%**	**Oceania**	**7.6%**	**Africa**	**0.9%**	**South America**	**1.9%**
United States	12.8%	United Kingdom	2.4%	China	10.9%	Australia	6.2%	South Africa	0.9%	Brazil	0.9%
Canada	3.3%	Italy	8.1%	India	7.1%	New Zealand	1.4%			Mexico	0.9%
		Greece	5.7%	United Arab Emirates	3.3%						
		France	3.8%	Japan	3.3%						
		Germany	3.3%	Taiwan	1.9%						
		Poland	2.8%	Malaysia	1.4%						
		Spain	2.4%	Pakistan	1.4%						
		Sweden	2.4%	Indonesia	0.9%						
		Netherlands	1.9%	Lebanon	0.9%						
		Latvia	1.4%	Iran	0.5%						
		Portugal	1.4%	Russia	0.5%						
		Estonia	0.9%	Singapore	0.5%						
		Hungary	0.9%	Turkey	0.5%						
		Switzerland	0.9%	Vietnam	0.5%						
		Albania	0.5%								
		Cyprus	0.5%								
		Iceland	0.5%								

4. Discussion

To answer research questions n. 2 (What are the main topics debated in the literature in the field of ESG practices during COVID-19?), we conducted an analysis of several papers, using the thematic methodology [16]. Therefore, the topic analysis is performed examining the "article-focus" categories identified as previously mentioned.

4.1. Category Investments and Stock Returns

The category A1 "Investments and stock returns" includes works that analyzes, from different angles, if investments in stocks of companies with high ESG rankings can be considered as a safer-haven during the COVID-19 crisis [17–21]. The papers in this category principally examine if ESG elements (in terms of ranking and of disclosure) immunized stocks during the COVID-19 crisis from the heavy losses of the market [22–26].

Most of the papers allocated in this category can be traced to the finance area, with the aim to provide insights to investors in terms of resource allocation during economic downturns [27–31].

Overall, we note that most of the papers explain a positive effect of good ESG practices on stock price [32,33]. This is in line with prior scholars who explain that a proper commitment to ESG values provides an insurance role during bear markets [34], thanks to the production of a sort of moral capital among company stakeholders [35] or a faithful relationship with stakeholders [36–38]. In fact, it has been proved that ESG performance provides downside protection during crisis times like COVID-19 [39], since results showed the superior risk hedging properties of ESG indexed over other assets [40]. The results are confirmed also by studies that analyze companies with low ESG performance, since it has been shown that firms with higher carbon intensities experienced significantly large decreases in stock values, particularly those within the crude petroleum extraction, air transport and coke and refined petroleum industries [41].

Other papers can be traced to the management area, since analyzing corporate governance effects on firms' success during COVID-19 [42]; has been shown a positive and substantial correlation between board diversity and the firm's success, which suggests that diverse boards are beneficial to businesses [43].

For the positive reasons mentioned above, investors find refuge in the ESG approach as it focuses on the long-run sustainability of firms [44], and therefore, they care about ESG practices in evaluating their investments [45,46]. At the same time, there are some studies that offer opposite results, since explaining that ESG did not immunize stocks during the COVID-19 crisis [47], and that the social and governance scores are correlated with lower stock return and higher volatility [48]. Moreover, other works suggest that the market reaction impact of ESG elements during the COVID-19 crisis is ambiguous [49]. In fact, some scholars explained that higher sustainability ratings of ESG ETFs did not protect the ETFs from losses during the COVID-19 crisis, but they did not perform worse than the market [50]. Omura et al. [51] demonstrate the outperformance of ESG indexes versus their benchmarks, but they are not able to conclude for the higher performance of ETFs, therefore their study is inconclusive. Other works support the refuge role played by ESG investments [44] and a "relative resilience to financial risk" of Chinese firms showing high ESG engagement [52].

The authors found that this category received the most contributions from academics. The systemic analysis showed that the prevailing doctrine, with which the authors of this contribution are associated, proved a positive effect of ESG practices. In the opinion of the authors, future studies should investigate (in terms of ranking and of disclosure) whether ESG performance can have a positive or a negative impact on stock price [53–57], especially through qualitative analysis.

4.2. Category Gender Studies

The category A2 "Gender studies" includes works with the aim to investigate the impact of an enhancement in female presence, meant as women in decision-making positions, on a firm's performance both in financial and sustainability terms during COVID-19 [58,59]. Studies explain that a higher board gender diversity have contributed to reduce the effects of the pandemic in the employment levels, and that have been able to improve their environmental performance more than companies with less diverse boards [60]. In terms of financial outcomes, prior works explain that a higher gender diversity during COVID-19 can improve ESG performance more than companies with low diversity [61]. Those findings are in line with the consensus in the literature that explains how firms' sustainability performance is expected to increase with more women on the board [62]. Papers focused on gender diversity tracked the performance in terms of gender diversity index of firms that are successfully working towards gender diversity as part of their CSR (Corporate Social Responsibility) strategy, even during the COVID-19 crisis, showing that the shock did not have effects on the route traced by the companies in improving the gender diversity index [63]. This category presents a small number of contributions, although it is an interesting topic. The authors believe—especially by analogy with previous studies in which a positive influence of the presence of women on boards of directors on ESGs has been proven—that it is important to test the correlation between gender and ESGs in times of strong economic and social turbulence.

4.3. Category Reporting

The category A3 "Reporting" includes articles that examine the "harmonization" process of sustainability reporting frameworks and standards that occurred alongside an increase in environmental, social and governance (ESG) investing during the COVID-19 pandemic. The theme is of high interest, since the IFRS Foundation confirmed the establishment of a Sustainability Standards Board to sit alongside the IASB to develop a single set of sustainability standards that would provide financially material sustainability information. This standardization is even more necessary during and after period of crisis like COVID-19 [64]. Moreover, since investors analyze company sustainability rankings and disclosure with much more effort than in the past, there is a growing interest to strengthen sustainability reporting and to use common non-financial standards with the same guidelines; in fact, the ISSB (International Sustainability Standards Board) is developing a comprehensive global baseline of high-quality sustainability disclosure standards to meet investors' information needs in the public interest [65]. However, even if there is interest for an "harmonization", studies showed that sustainability reporting regulation is still far away from harmonization due to the perceived hegemony in the arena, and diversity in the overarching objective of the various actors and the inability of each actor to abdicate its perspective and orientation [66]. The need of "harmonization" is higher now than in the past since the use of ESG reporting accelerated further in the COVID-19 crisis. Therefore, we can assume that since the COVID-19 pandemic increased the interest of investors in analyzing ESG factors, the "harmonization" of the non-financial disclosure should be subject to primary interest of the regulators. [67].

4.4. Category ESG in Specific Industries

Category A4 "ESG in specific industries" includes contributions aimed at investigating, based on the analysis of specific business sectors, whether the ESG approach is effective in dealing with management problems in adverse conditions, such as those imposed by the COVID-19 pandemic [68], and whether such an approach can be considered a valid tool for improving the performance and value of companies in times of instability [69,70].

Most of the papers analyze the tourism sector [71] and, more broadly, the corresponding related industries (airline, hotel, restaurant, etc.) [72–74]. It has tended to be verified that the higher a company's ESG score, the less volatile its stock returns are [73] and that firms with better ESG performance become more risk-averse and exhibit stronger defense mechanisms. For companies operating in the tourism sector (more specifically hotels), it has been found that attention to ESG factors is a safe haven during market turbulence [74]. In general, the results of the reviewed studies indicate that economic and political uncertainties are significantly and positively correlated with sustainability disclosure scores, in particular tourism companies make more sustainability disclosures especially in periods with increasing uncertainties. This can boost the company's performance and reputation and promote positive word-of-mouth among various stakeholders. Studies also show the importance of sustainability information in reducing the impact of economic uncertainty on company value during periods of COVID-19 and global financial crisis [71].

All studies with respect to the tourism sector have the limitation related to the sampling carried out by the different authors and there is a lack of an integrated analysis between the different areas of the sector: hence the need to deepen the studies in this sense and carry out a systemic analysis.

Other sectors analyzed by the authors are the public sector, the financial sector, and the energy sector. In the former case, the studies suggest that greater mapping of ESG pillars may foster better outcomes and performance in times of instability [75,76], but it has also been observed that this dynamic is not always present in the public sector, especially in the healthcare sector, where it is more the investment in technology than in ESG practices and disclosure that matters [77–79]. Regarding the financial and insurance sector, studies suggest that compliance with environmental, social, and corporate governance requirements has concrete practical benefits that go far beyond moral recognition [80].

In this respect, the role of banking institutions is crucial, as they must pay attention as a company to ESG requirements [81], must steer clients in this direction in such a way as to encourage investment virtuosity on the part of lending institutions, who may thus be enticed to invest capital in projects that also satisfy sustainable development and climate protection [82]. Studies show that with respect to the banking sector, but also with respect to the insurance sector, attention to ESG practices is relevant with respect to risk protection for customers, but not so much with respect to the performance of the financial institution itself. Some studies show little correlation between ESG scores and the performance of banking institutions [75]. As for the energy sector, the studies are more focused on the improvement of credit ratings: a certain positive rating sensitivity to ESG measures is illustrated, but it seems that this sensitivity is driven by the fact that the main investors in this sector are the governments of the countries; in fact, there are publicly owned companies that therefore "appease" the rating companies [83].

The authors found that this category is rich in contributions, but the contradictions and criticalities that emerged from the analysis confirm the need for further studies to ascertain whether the ESG approach can indeed be a refuge in all sectors of the economy, or whether for some it is not indispensable. In the opinion of the authors, the major limitation of the sectoral analysis is the sampling techniques. Scholars' efforts could focus on an analysis that can provide a more comprehensive view of a specific sector and pave the way for avenues of comparison with other areas of activity.

4.5. Category ESG Rating

Category A5 "ESG rating" includes several contributions that highlight how the COVID-19 pandemic has increased the need for market participants, academics and regulators to know about ESG data, ratings and rankings. The studies reviewed show that the reliability of ESG ratings is not always high for various reasons, such as differences between raters, lack of transparency on data sources, weightings performed by different agencies, and not fully reliable information provided by companies [84,85]. In this context, it has been pointed out that alongside the need to require companies to disclose more information on ESG [85], in order for ratings not to be unusable, there is also a need for investors to act in a more structured manner, acquiring information about the methodologies adopted by raters [86–88] as well as credit rating agencies. In fact, some studies highlight ESG ratings as a basic measure of credit rating change, with particular reference to pandemic ratings [89].

Other studies, however, focus on different topics: i) the importance of ESG ratings in making choices and agreements in international trade and economics [90]; ii) the need to refine ratings by also considering the supply chain in measurements so as to more correctly guide investors' choices [91]; the circumstance that high ratings reduce systemic risk [92].

Even with respect to the studies in category A5, there are limitations linked mainly to the samples analyzed and to the need to constantly monitor the rating process operated by the various agencies with a systemic vision that considers all the theorizations underlying the models employed by the agencies and the reliability and effectiveness of the companies' information process. Future studies, therefore, should further investigate the dynamics underlying the rating process in order to fully understand whether ESG ratings can actually constitute reliable data, i.e., whether they are in fact unusable data.

4.6. Category Others

The A6 category "Others" concerns contributions of a residual nature dealing with different topics directly or indirectly concerning ESG and COVID-19.

In particular, the contributions examined highlight how the COVID-19 pandemic has amplified concern about issues such as climate change, the environment, philanthropy and, therefore, in general about the need to engage in sustainable activities: this has opened fertile ground for scholars in the field, which has been followed by the proliferation of studies and in-depth studies on the most varied topics. [93–97]

In general, most of the contributions focus on corporate social responsibility and sustainability as drivers of corporate growth, focusing only from a purely discursive point of view on ESG issues: for example, it has been analyzed through empirical analyses on specific countries that Foreign Direct Investments (FDI) predominantly focus on sustainable activities [98] especially in the aftermath of the pandemic; again, it was examined how the role and activities of accountants changed in the pandemic era [99], highlighting how workers in the sector had to develop cross-disciplinary knowledge ranging from mere accounting to technology to broad concepts of sustainability; another study [100], based on an empirical case study, showed that investments were predominantly oriented by logic based on environmental, social and governance (ESG) factors; still other studies investigated how the dynamics of donations by companies changed in times of COVID-19. There has been an intensification of philanthropic activities by corporations [101] and, in each case, a study [102] showed that larger companies with higher ESG ratings contributed more to donations; at the same time, when donations were made by smaller companies with lower ESG ratings, there was a better response of their stock market prices.

Two contributions focusing on the role of corporate governance were then examined: in particular, it was investigated how external and internal corporate governance influences the company's ESG performance and increases its competitiveness [103], furthermore, it was investigated through a systemic study of the literature, which issues were explored in depth in the pandemic period with respect to corporate governance and COVID-19 [104]. The results of this research showed that the topic was of greater interest in developed than in underdeveloped countries and that no relevant conclusions were found with respect to the correlation between corporate performance, corporate governance, and corporate social responsibility.

Two other contributions, however, concern the need for specific training programs to improve CSR and ESG practices not only at the private level but also at the public level, as a basis for organizations to engage stakeholders, including the stock market which already offers training courses or workshops on ESG issues [105,106].

Lastly, in category A6, a lot of research has been done with respect to the integration between ESG practices and certain business areas or corporate functions: it has been highlighted that companies should focus on digital transformation without ignoring environmental social and governance (ESG) issues [107]; in the wake of the COVID-19 pandemic, there has been a rethinking of countries away from their traditional financial models and towards technological and sustainable models (such as financial products with extensive ESG disclosures provided in a transparent, widespread and easily accessible manner) [108]. Furthermore, companies can take advantage of the obsolescence of infrastructure (especially technology) to invest in this area and at the same time, also through partnerships with the public sector, foster the development of ESG factors [109]. Again, it is believed that integrating marketing activities [2] and brand development [110] with an ESG approach can be a key factor both in terms of corporate social responsibility and in terms of increased customer loyalty, which is incentivized to trust the messages conveyed by companies.

The studies included in category 6, although residual, leave ample room for scholars of the subject to delve deeper; of particular interest to the writer is the correlation between the growth of specific business areas or company functions and the integration of ESG measures. A systemic and unified study of the various business areas of interest and the development of ESG approaches would be desirable to verify the actual impact, in terms of improved performance and social responsibility, following the integration of these factors.

Even then, the limitations encountered in relation to the other categories remain, especially in terms of the reliability of ESG information and ESG ratings.

5. Conclusions and Future Research

The COVID-19 pandemic led to huge uncertainty on all the world economies along with very relevant changes in the life of everyone, and therefore also in all the companies. In this paper, we reviewed works focused on analyzing how the COVID-19 pandemic and ESG are correlated, from various angles, in an effort to answer the research questions. We investigate a sample consisting of 85 scientific papers written by scholars from all around the world (about 40 countries) and argue that despite the high number of recent works (written from 2020), there is still lack of knowledge on specific effects of COVID-19 in terms of ESG practices.

In answer to RQ1, our systematic literature review shows that the research focused on the effects of COVID-19 to ESG is growing, multidisciplinary, dominated by studies adopting quantitative methods (58,82% of our sample) and concentrated in developed markets (principally North America, Europe and China). We identified 6 different streams of research in the ESG-COVID-19 literature. In the specific, we found the following: (1) investment and stock returns; (2) gender studies; (3) ESG reporting; (4) ESG in specific industries; (5) ESG ratings; (6) other like integration between ESG practices and certain business area. These studies investigate the correlation between the COVID-19 and ESG matters. Specifically, studies investigate if companies change their behavior in terms of ESG in response to COVID-19, or if good ESG performance constituted a strength for companies during COVID-19.

In answer to RQ2, we were able to ascertain that each of the identified categories presented a growing interest on the part of academics, with a prevalence towards studies focusing on A1 and A4 risking saturation, whereas the other categories, although interesting, present fewer contributions.

The unexplored areas represent fertile ground in some cases (A2, A3 and A5), while in others (A6) they risk leading to paths that are ends in themselves if no attempt is made to harmonise the results obtained.

Therefore, in response to RQ3, it is believed that the future of research on ESG issues, in light of the strong push generated by COVID-19, may generate the emergence of further, practical insights.

What is represented in response to RQ2 and RQ3 derives from the results achieved by the verifications we carried out with respect to each thematic area analysed, as briefly explained below.

In relation to the stream of research "investment and stock returns", prior works on ESG investing literature find that ESG-focused portfolios represented protected investments during COVID-19, in comparison to not-ESG-focused portfolios. In contrast, we find different works that did not discover any improvements of ESG-focused portfolio in comparison to the non-ESG-focused portfolio.

Looking at the analyzed studies, we found that since the research is predominantly focused on quantitative studies, scholars should focus on qualitative studies, to be able to deeply analyze specific characteristics able to influence stock returns. Moreover, studies should be focused on specific industries since some of them were much more negatively influenced by the COVID-19 in comparison to others [111].

Other research avenues could include a bigger focus on contexts different from North America and Europe, which accounted for most of the studies reviewed. In fact, there can be relevant variations across the markets, even because some of them have been affected by COVID-19 in different times and with a different magnitude.

In relation to the stream of research “gender studies”, we discovered that there are only a few studies that analyze how gender diversity can affect the relationship between COVID-19 and ESG, and this constitutes an avenue for future research. In fact, given the relevant role of gender diversity [112], and in particular on corporate governance outcomes able to influence company performance, the theme should be deepened. Prior studies, not focused on COVID-19, explained that gender diversity in the Board of Directors has an overall positive influence on ESG performance 19 [113]. However, there are not studies that deeply analyze that kind of relation during turbulent times like COVID-19. Therefore, it can be interesting to understand if gender diversity can play a role in inducing companies in continuing investing on ESG elements during external shocks like COVID-19. Moreover, since the kind of disclosure of ESG elements is influenced by gender diversity [114], it should be also interesting to understand if during COVID-19, the quality of ESG information changed in relation to the gender diversity.

In relation to the stream of research “ESG reporting”, only a small number of studies analyze COVID-19 effects on the “harmonization” of sustainability reporting practices.

Considered the interest on this matter, next studies should be focused on analyzing if the increased interest on ESG performance during COVID-19 pushed regulators to speed up the harmonization process. In fact, given the higher interest of investors to financial instruments focused more on ESG elements, there is more and more necessity to improve the harmonization across ESG reporting disclosure, since investors want to be more confident on the assets in which they invest. Those studies would be helpful for both academics and practitioners. Moreover, other studies should understand if the changes in the harmonization process are also due to the negative impact of COVID-19. In fact, after COVID-19, businesses are expected to help build back better and to reimagine the economy in the shadow of the pandemic, and therefore it is time to intensify efforts by business to incorporate sustainable development considerations into strategy, management approach and governance oversight and to be accountable for them. [64].

In relation to the stream of research “ESG in specific industries”, several studies analyze the relationship between COVID-19 and ESG in some specific sectors. Most of the papers analyze the tourism sector [71], public sector, financial and energy sector. The tourism sector is, without any doubt, the one more analyzed by academics, maybe because is one of the sectors that has been hit by the COVID-19 more than the others. Therefore, we suggest focusing the attention on industries different from tourism, to find new insights not yet discovered by scholars. Moreover, future studies can focus on different aspects of ESG, decomposing the components of ESG (Environmental, Social, Governance). In fact, analyzing the different components find distinctive results in relation to different industries. This field of research can represent an interesting new line of inquiry.

Another identified stream of research in the ESG-COVID-19 literature is the “ESG rating”. In fact, in some cases, the reliability of ESG ratings is not always high. Through our literature review we found that there are differences between raters, lack of transparency on data sources, and data disclosed by companies have not always the same format. Therefore, the ratings are not always comparable across them. Some studies focused on specific ESG ratings, and other studies focused on other metrics, sometimes obtaining different results. In order to obtain comparable results across companies operating in the same countries or in the same industries, it is necessary that scholars use the same metrics to measure ESG performance.

Future studies should focus on the most reliable datasets (like Reuters), that contain data on the different components of ESG, and because data are more easily extractable, and therefore can also be compared with the results of the analysis across industries, geographies, or type of company.

The last identified stream of research is not linked to a specific topic, but to general matters, like investments in ESG Foreign Direct Investments, integration between ESG practices and specific business areas during COVID-19, how workers developed cross disciplinary knowledge, etc.

The studies in those residual categories leave ample space for academics to analyze the relationship between COVID-19 and ESG. The study of the effect of COVID-19 on ESG is important also because it permits to analyze the influence on ESG performance of an external shock. In fact, the effect of COVID-19 can be assimilated to an external shock, and therefore the results can be generalized to a big number of events able to affect corporate decisions in terms of ESG practices. The fact that companies continue to invest on ESG even during an external shock corroborate the findings of past studies that revealed the relevance of ESG elements for investors and entrepreneurs.

The conclusions reached in this study can be a useful starting point not only for academics, but also for market players and top management of companies. In fact, especially the correlation between ESG and positive corporate performance is an attractive element for companies, which through this study can better understand which sustainable activities to focus their efforts on.

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