

A CRITICAL REVIEW OF ENVIRONMENTAL, SOCIAL, AND GOVERNANCE FACTORS INFLUENCING SUSTAINABLE INVESTMENT DECISIONS

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Abstract

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The study aimed to investigate the effects of environmental, social, and governance (ESG) factors on sustainable investments. Using the Scopus database, a systematic search approach was employed, adhering to the preferred reporting items for systematic reviews and meta-analyses (PRISMA) protocol for article selection. PRISMA aims for clarity and openness; authors must disclose the methods used in the systematic review so that all readers can evaluate its merits (Moher et al., 2011). Only research articles published between 2019 and 2023 were considered, excluding earlier publications; 163 articles were chosen for assessment out of the 211 articles that were discovered using the search parameters. The article points up gaps in the published literature that may present chances for more research in the future. ESG factors are widely recognized as pivotal in assessing sustainable investment opportunities. Synthesizing various studies reveals that integrating ESG considerations positively influences decisions related to sustainable investments. In addition to outlining a visual and conceptual framework for this research area, the study offers insights into current trends and future directions in sustainable investment decision-making. This paper provides insights into the current trends and future directions in sustainable investment decision-making and incorporates important new information about the impact of ESG criteria on sustainable investing decisions.

Keywords: Environmental, Social, Governance, ESG, Sustainable Investment, Investment Decision

Authors' individual contribution: Conceptualization — A.R.; Methodology — A.R., A.A., and E.H.; Software — A.A., E.H., and V.S.; Investigation — A.R., E.H., and V.S.; Resources — E.H., V.S., F.S., H.K., and N.T.; Writing — Original Draft — A.R.; Writing — Review & Editing — A.R., E.H., V.S., F.S., H.K., and N.T.; Visualization — A.R., A.A., and E.H.; Supervision — A.A. and E.H.

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1. INTRODUCTION

The idea of environmental, social, and governance (ESG) was initially proposed in 2006 in the United Nations Principles for Responsible Investment (Gasperini, 2020). ESG factors are increasingly

being integrated into investment decision-making procedures, indicating a larger movement towards sustainable and ethical investing practices (Clark et al., 2015). These factors include a variety of ESG concerns that are analyzed to determine the sustainable future and ethical implications of

investment decisions (Khan et al., 2016). Studies have shown that ESG considerations have a major influence on investment choice processes, emphasizing the need to incorporate sustainability criteria into investing strategies (Nerlinger, 2020; Iazzolino et al., 2023). ESG factors have a significant impact on estimating yields and shouldn't be overlooked when making investment decisions (Maiti, 2021).

Investors face several obstacles to incorporating these factors holistically into their investing decisions, which puts at risk the accomplishment of pressing social objectives (Friede, 2019). To get greater clarity, other factors might be integrated in the future. Businesses that provide the data and resources required to develop and enhance the effect of their ESG strategy aim to draw in additional investors looking to include sustainability in their investment portfolio (Aich et al., 2021). A more thorough investigation is required to understand sustainable investment (Rochell et al., 2020). Researchers have spent the last few years concentrating primarily on environmental issues compared to social or governance concerns (Newell & Marzuki, 2022).

The goal of this research is to examine the ESG factors that impact sustainable investing decisions in light of the aforementioned research gap. The study's research question is:

RQ: What ESG factors influence investors when they make investment decisions?

According to the MSCI ESG key issue framework, environmental pillars are: climate change, natural capital, pollution and waste, and environmental opportunities; social pillars are: human capital, product liability, stakeholder opposition, and social opportunities; governance pillars are: corporate governance and corporate behavior (Bloomberg, 2021).

In this comprehensive review of the literature, there are articles which consider environmental factors such as water consumption, energy consumption, and greenhouse gas (GHG) emission (Liu et al., 2023; Morelli, 2024), climate change (Cruciani & Santagiustina, 2023; Nguyen et al., 2023; Fischer et al., 2021), carbon emissions and water scarcity (Gevorkova et al., 2024; Zaccone & Pedrini, 2020; Benz et al., 2021), green finance carbon footprint (Zou et al., 2023; Thanki et al., 2022), (Benz et al., 2021), GHG emissions, renewable energy, and waste management (Newell & Marzuki, 2022; Rahat & Nguyen, 2023; Hughes et al., 2021); social factors such as human rights (Aich et al., 2021; Daugaard, 2020) and labor practices (Rahat & Nguyen, 2023); governance factors such as corporate governance, stakeholder engagement, shareholder rights, board composition (Kim & Lee, 2021), and corruption (Delsen & Lehr, 2019). According to this review, these factors are considered by the investors while making a decision of sustainable investment shown in Table A.1 (see Appendix).

The study objectives that are being fulfilled by this comprehensive literature review are as follows:

- to review the existing literature and to determine the thematic areas and approaches on which the research on ESG factors has concentrated;
- to study and understand the ESG factors towards sustainable investment decision-making.

The research paper starts by reviewing the literature using the preferred reporting items for systematic reviews and meta-analyses (PRISMA) framework which aims to aid authors in becoming

better in their comprehensive evaluation and reporting of meta-analyses (Moher et al., 2009). This review provides novel insight into the worth of ESG factors.

The paper is organized as follows. The literature review of the research is discussed in Section 2, the methods and PRISMA framework are covered in Section 3. The results and discussion are included in Section 4. The paper is summarized in Section 5.

2. LITERATURE REVIEW

2.1. ESG factors

Beginning in the early 1970s, researchers looked for a connection between corporate financial performance (CFP) and ESG factors (Friede et al., 2015). The ESG idea was formally proposed in 2004 and has been developed over 17 years. The integrated expansion of environments, society as a whole and governance in line with the ESG concept is still being promoted by nations all over the world (Li et al., 2021). Environmental problems, such as pollution of the air, water, and soil, climate change, biodiversity loss, and overuse of natural resources, have been becoming worse. Since the term "sustainable development" was coined, a lot of market players — including institutional and private investors — have expressed a desire to take environmental sustainability into account when making investment decisions. However, attaining sustainable development is difficult until the rise of ESG-making investments, which is strongly related to sustainability (Senadheera et al., 2021). In order to promote the "S" in ESG investing and to highlight important techniques used to quantify and assess social effects, supply chain finance must prioritize social responsibility (Baid & Jayaraman, 2022). The methods, rules, and procedures that direct an organization's decision-making and responsibility are referred to as governance ("G"). These include corporate governance frameworks, board diversity, openness, and moral business conduct (Kouaib et al., 2020). Since generic factor premiums are frequently based on the same economic concepts, ESG indicators are important in factor-based investing strategies. Investors can attain equivalent historical performance to conventional benchmark factor portfolios that do not take these factors into account by incorporating ESG and carbon consequences into the portfolio's development process in addition to factor exposures (Chan et al., 2020). Investors who were integrating ESG considerations to a certain extent while making investment decisions, or who intended to do so (Eccles et al., 2017).

2.2. Sustainable investment

Sustainable investing, sometimes referred to as values-based investing or responsible investing, is a method of selecting assets that take into account factors other than money. It should be essential for all kinds of responsible investors to fulfill their fiduciary responsibilities and can assist investors in better coordinating their interests with social aims (Friede et al., 2015). A "catch-all" name for all types of responsible investment, ESG-oriented investment (which is more akin to a corporate social responsibility (CSR) strategy), and socially responsible investing (SRI) is "sustainable investing". The most recent generation of sustainable investors are responsible

investors who prioritize best-in-class ESG. These investors are frequently institutional investors, who occasionally also follow the “universal owner” concept. They look for a consistent competitive edge and outperformance, in part by assessing a company’s management’s overall capacity to adjust to a changing business environment and generate long-term value (Fulton et al., 2012).

Long-term risk-adjusted investment returns are the main focus, with consideration given to ESG factors. Investors ought to select the approach that most closely aligns with their objectives and preferences (Aich et al., 2021). Numerous international organizations are working to develop indicators related to ESG, and they are in line with financial institutions that are looking for a common language to define the indicators that affect their shared goals of achieving long-term, sustainable growth and prosperity (Kocmanová & Dočekalová, 2012).

3. RESEARCH METHODOLOGY

3.1. Search procedure

The search procedure provides a detailed electronic search technique for a minimum of one database, considering any limitations that can be repeated (Welch et al., 2016).

For this comprehensive research, a method of investigation was devised to find ESG factors associated with sustainable investing. This search method was tailored for the database Scopus, the keywords utilized as these: “ESG” OR “Environmental, social, governance”, “Sustainable investment” OR “SRI”. Additional keywords are: “Sustainability”, “Sustainable finance”, “Sustainable development”, “Corporate social responsibility”, “Investments”, “Decision-making”, “Investment decisions”.

All searches covered the period from the database’s establishment to 2023 and covered only articles that were issued in the English language.

3.2. Selection criteria

The PRISMA statement provided a structure for the selection standards (Moher et al., 2009). Selection criteria for studies and reports (e.g., years considered, language, publishing status) should be specified, along with a reason (Welch et al., 2016).

The mapping of recent research on ESG factors and sustainable investment in the social sciences, environmental studies, economics and decision sciences, accounting, finance, econometrics, and business management was the primary focus of the search. The search period lasted from 2019 until 2023. All articles published before 2019 have been excluded from the search.

3.3. Quality assessment

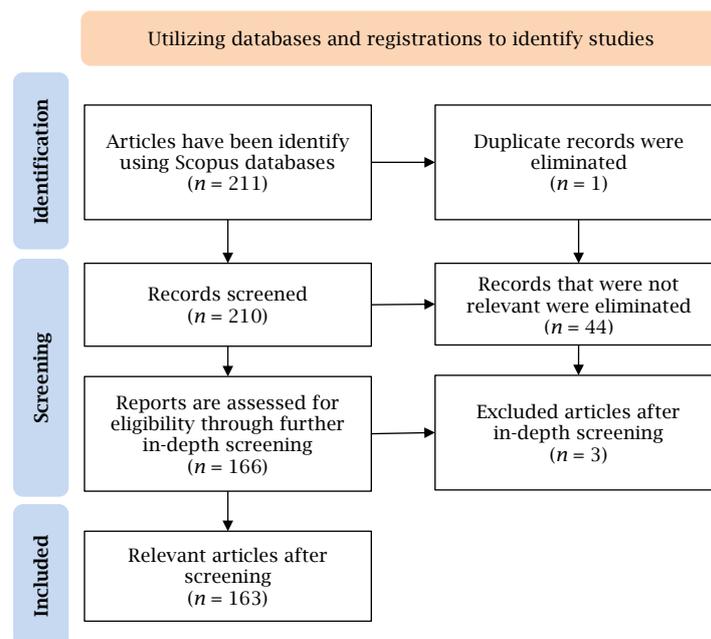
Determine any possible sources of misconduct, such as bias in publications or insufficient coverage inside research, that might affect the overall strength of the evidence (Welch et al., 2016). Every research report was carefully evaluated at a later point. Furthermore, after filtering for duplicate entries, 44 additional articles were excluded from the research; 166 articles were assessed for in-depth screening. Excluded articles after in-depth screening are three. Finally, 163 articles after evaluated each one using the previously mentioned exclusion and inclusion criteria.

3.4. Data extraction

Following the selection of 163 articles for the data retrieval step, these features were taken:

- the paper should be novel articles;
- English is the required language for the articles;
- the retrieved publications were published from 2019 to 2023.

Figure 1. Screening article selection process graphical representation for comprehensive research



Source: Authors’ elaboration.

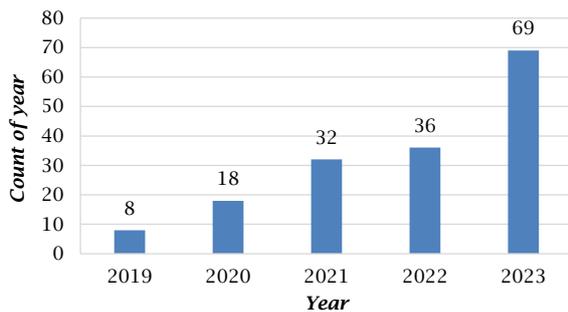
4. RESULTS AND DISCUSSION

4.1. Years

Environmental, social, and governance investing is a rapidly evolving area (Drei et al., 2019). Figure 2 represents the overall pattern by year among articles selected for the thorough review research from 2019 to 2023. It indicates that 69 of the 163 articles were published in 2023, 36 in 2022, and 32 in 2021.

Furthermore, there were 18 and eight articles published in 2020 and 2019, respectively.

Figure 2. Overall statistics of selected articles by year



Source: Authors' elaboration.

4.2. Journals

As a whole, the comprehensive literature evaluation included journal articles published in 89 distinct international publications between 2019 and 2023. A greater number of publications (42.33%) were published within 2023: *Sustainability* (Switzerland) (16.56%), *Business Strategy and the Environment* (6.13%), *Journal of Sustainable Finance and Investment* (5.52%), *Journal of Cleaner Production* (3.68%), *Corporate Governance* (Bingley) (3.07%), and *Finance Research Letters* (2.45%) (see Table A.2 in Appendix).

4.3. Descriptive analysis

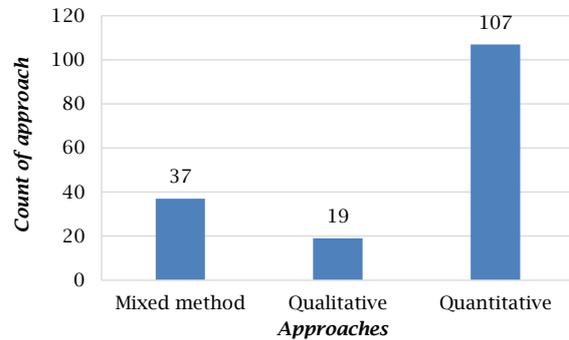
Table A.1 in Appendix shows the categorization of 163 articles on sustainable investing and ESG by theme, approaches, and ESG factors. Thematic evaluation and interpretation are presented in this part. The total count of approaches is shown in Figure 3.

4.3.1. Approaches

In Figure 3 the examination of ways used in a comprehensive assessment of research publications from 2019 to 2023 demonstrates a broad landscape of strategies for analyzing ESG factors including sustainable investing practices. Over the 163 articles analyzed, quantitative techniques were the most common, with 107 articles using quantitative methods for analyzing ESG-related information as well as investment results. Furthermore, 19 articles were recognized as using qualitative methodologies, including comprehensive interviews, case reports, and qualitative analytic methods to investigate subtle elements of ESG concerns and sustainable investing practices. Also, 37 articles used both qualitative and quantitative techniques in mixed-methods approaches to provide

a comprehensive understanding of the nuances of ESG factors as well as sustainable investment techniques.

Figure 3. Total count of approach



Source: Authors' elaboration.

4.3.2. Themes

The authors reviewed 163 comprehensive literature reviews which cover themes like ESG rating, ESG practices, ESG performance, ESG investment, sustainability, ESG consideration, ESG model, and investors awareness.

Six main rating agencies — Asset4 (Refinitiv), MSCI KLD, MSCI IVA, Bloomberg, Sustainalytics, and RobecoSAM — provide ESG ratings (Avramov et al., 2022).

ESG-related articles are by Li et al. (2023), Chowdhury et al. (2023), Fu et al. (2022), Gupta and Chaudhary (2023), Liu et al. (2023), Boiral et al. (2020), Charlin et al. (2024), Aboud and Diab (2019), Utz (2019), and Landi and Sciarelli (2019).

SRI — or ethical investing or sustainable investment — integrates ESG factors into investment decisions (Capelle-Blancard & Monjon, 2012). In this review, SRI theme-related articles are authored by Beloskar et al. (2023), Tomassetti (2023), Haji Wahab and Mohamed Naim (2023), Kong et al. (2023), Gutsche et al. (2023), Raut and Kumar (2023), Merli et al. (2023), Zou et al. (2023), Mishra et al. (2023), Nel et al. (2023), Gevorkova et al. (2024), Murashima (2023), Atz et al. (2023), Jonwall et al. (2023), Garg et al. (2022), Thanki et al. (2022), Diener and Habisch (2021), Bekaert et al. (2023), and Palma-Ruiz et al. (2020).

ESG disclosure-related articles are authored by Kalia and Aggarwal (2023), Cruciani and Santagiustina (2023), Kouaib (2022), Kumar and Firoz (2022), Dziadkowiec and Daszynska-Zygadlo (2021), Murata and Hamori (2021), and Matakanye et al. (2021).

4.3.3. ESG factors

According to this comprehensive review of 163 articles, it is recommended to take into account:

- environmental factors such as energy and water use as well as GHG emissions (Morelli, 2024), climate change (Cruciani & Santagiustina, 2023; Nguyen et al., 2023; Fischer et al., 2021), carbon emissions and water scarcity (Gevorkova et al., 2024; Benz et al., 2021), carbon footprint (Zou et al., 2023; Thanki et al., 2022; Benz et al., 2021), GHG emissions, renewable energy, and waste management (Newell & Marzuki, 2022; Nguyen et al., 2023; Hughes et al., 2021);

- social factors such as human rights (Aich et al., 2021; Nerlinger, 2020; Daugaard, 2020), health and safety, employment rights, human resource management (Nguyen et al., 2023), human capital, and local communities;

- governance factors such as corporate governance, stakeholder engagement, shareholder rights (Tomassetti, 2023; Matakanye et al., 2021), business ethics and transparency of payments (Hughes et al., 2021), board composition (Kim & Lee, 2021), corruption (Delsen & Lehr, 2019).

According to this review, these factors are considered by the investors while making a decision of sustainable investment shown in Table A.1 in Appendix.

5. CONCLUSION

The purpose of this study was to investigate how ESG factors impact choices about sustainable investing. The findings indicate the presence of several ESG factors influencing choices on sustainable investment decisions.

Through a thorough analysis of 163 articles in the field of ESG factors and sustainable investment, we successfully managed to identify gaps in the available literature as well as investigate the prospects of conducting additional research to close these gaps, with a particular emphasis on the effectiveness of ESG factors on sustainable investment decision.

The literature is dominated by themes including investor awareness, sustainability, performance, ESG models, ESG ratings, and practices.

Thanks to this, we were able to identify gaps in the body of literature that could raise questions for further investigation.

According to Table A.2, the entire comprehensive literature review comprised journal articles that were published in 89 different international periodicals between 2019 and 2023. In 2023, a higher

percentage of publications (42.33%) were released. Figure 2 represents the overall pattern by year among articles selected for the thorough review research from 2019 to 2023. It indicates that most of the articles were published in the year 2023. Table A.1 presents the categorization of the 163 articles on sustainable investing and ESG by theme, approaches, and ESG factors. Thematic evaluation and interpretation are presented in this part. According to Figure 3, quantitative techniques were the most common, with 107 articles using quantitative methods. Furthermore, 19 articles were recognized as using qualitative methodologies and 37 articles used mixed-methods approaches, themes like ESG rating, practices, performance, investment, sustainability, consideration, model, and investor awareness.

According to our data, social and governance factors receive less research attention than environmental ones.

This study has limitations even if it offers insightful information. The review's scope was limited to a single source of information, but quality was guaranteed because it was limited to publications from the Scopus database. Furthermore, the analysis was limited to the 2019–2023 timeframe, which might have missed historical transitions or longer-term patterns in ESG research. First off, we were only allowed to examine articles from one database (Scopus) for the study, which restricted our ability to examine different types of ESG factors in sustainable investment literature. Deciding to include articles in this database was made with the intention of preserving the articles' overall quality. It is possible to expand the study even further by adding more material from different sources. Future research might deal with the methodological and thematic difficulties raised in this study as well as fill in the gaps and limits found, especially in less-studied areas such as social and governance factors.

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APPENDIX

Table A.1. Analysis of ESG factors as well as approaches to theme-based ESG factors (Part 1)

No.	Title	ESG factors	Approach	Theme
1	Data-driven ESG assessment for blockchain services: A comparative study in textiles and apparel industry	Environmental (water consumption, energy consumption, and GHG emission)	Quantitative	ESG rating
2	Board characteristics and integrated reporting quality: Evidence from ESG European companies	Governance (board size, board independence, chief executive officer (CEO) duality, gender diversity)	Quantitative	Corporate governance
3	Responsible investing and portfolio selection: A Shapley-Cvar approach	Environmental	Quantitative	SRI
4	Corporate sustainability disclosure and investment efficiency: The Saudi Arabian context	ESG	Quantitative	ESG disclosure
5	Do environmental, social and corporate governance practices enhance Malaysian public-listed companies performance?	Environmental (pollution, water security, climate change and sustainability), social (diversity, human rights, consumer protection, and animal welfare), governance (tax transparency, management structure, employee relations, executive compensation, and employee compensation)	Quantitative	ESG practices
6	A comparison of investment behavior, attitudes, and demographics of socially responsible and conventional investors in India	ESG	Mixed method	SRI
7	Returns behavior of ESG ETFs in the COVID-19 market crash: Are green funds more resilient?	ESG	Quantitative	ESG performance
8	Sustainability and stability: Will ESG investment reduce the return and volatility spillover effects across the Chinese financial market?	ESG	Quantitative	ESG and SRI
9	ESG rating events, financial investment behavior and corporate innovation	ESG	Quantitative	ESG rating
10	The impact of ESG factors on financial efficiency: An empirical analysis for the selection of sustainable firm portfolios	ESG	Quantitative	ESG factors on financial efficiency
11	The role of corporate governance and environmental and social responsibilities on the achievement of Sustainable Development Goals in Malaysian logistic companies	ESG	Mixed method	Role of ESG
12	Environmental, social, and governance performance and enterprise dynamic financial behavior: Evidence from panel vector autoregression	ESG	Quantitative	ESG performance
13	Does sustainability generate better financial performance? Review, meta-analysis, and propositions	ESG	Mixed method	Sustainability
14	Sovereign ESG integration: A bibliometric and systematic literature review	ESG	Quantitative	ESG integration
15	Investor preferences, financial literacy and intermediary choice towards sustainability	ESG	Mixed method	Sustainability and investor's preferences
16	Does ESG performance impact credit portfolios? Evidence from lending to mineral resource firms in emerging markets	Environmental (GHG emissions, climate change, water usage, and biodiversity conservation), social (human rights, labor practices), governance (transparency, ethical decision-making)	Quantitative	ESG performance
17	Investor's values and investment decision towards ESG stocks	ESG	Mixed method	ESG stocks
18	Breaking ground in ESG assessment: integrated DEA and MCDM framework with spherical fuzzy sets for Vietnam's wire and cable sector	Environmental (renewable energy, GHG emissions, pollution and waste), social (health and safety, employment rights, human resource management), governance (shareholder rights, corporate governance, risk management, ethics)	Mixed-method	ESG rating
19	The impact of the COVID-19 pandemic on motivating factors affecting individual investors' socially responsible investment decision: A comparative analysis of the USA, Germany and Japan	Environmental and social	Mixed method	SRI
20	Impact of environment performance on firm value: Evidence from Indonesia	Environmental (climate change)	Quantitative	Environmental performance
21	Examining impact of ESG score on financial performance of healthcare companies	ESG	Quantitative	ESG disclosure

Table A.1. Analysis of ESG factors as well as approaches to theme-based ESG factors (Part 2)

No.	Title	ESG factors	Approach	Theme
22	Cleansing investor's conscience: The effects of incidental guilt on socially responsible investment decisions	Environment (carbon emissions, water scarcity)	Mixed-method	SRI
23	Quality and environmental management systems as business tools to enhance ESG performance: A cross-regional empirical study	ESG	Quantitative	ESG performance
24	As you sow, so shall you reap: Assessing drivers of socially responsible investment attitude and intention	Environmental, social	Mixed method	SRI
25	Consumer segmentation of green financial products based on sociodemographic characteristics	Environmental (green finance)	Mixed method	Green finance
26	Fuzzy confrontations of models of ESG investing versus non-ESG investing based on artificial intelligence algorithms	ESG	Quantitative	ESG investing
27	How important is green awareness in energy investment decisions? An environmentally-based rebalancing portfolio study	Environmental (carbon footprint)	Quantitative	Environmental ratings
28	Environmental, social, and governance risks and environmentally sensitive competitive strategies: a case study of a multinational logistics company	ESG	Quantitative	ESG risks
29	The impact of mutual funds' ESG scores on their financial performance during the COVID-19 pandemic. A data envelopment analysis	ESG	Quantitative	ESG criteria
30	The adverse impact of corporate ESG controversies on sustainable investment	ESG	Quantitative	ESG controversies
31	Going green? On the drivers of individuals' green bank adoption	Environmental	Mixed method	SRI
32	The present and future of sustainability disclosure in equity investment funds' pre-contractual documents: Mapping ESG discourse through STM	Environmental (climate change, pollution control, carbon footprint)	Quantitative	ESG disclosure
33	Sustainability reporting: examining the community impact of the S&P500 companies	Environmental, social	Quantitative	Sustainability
34	Time-varying risks in ESG equity investments during the COVID-19 pandemic	ESG	Quantitative	ESG equity investments
35	Evaluation of strategic and financial variables of corporate sustainability and ESG policies on corporate finance performance	ESG	Quantitative	CSR and ESG
36	An improved TOPSIS model based on cumulative prospect theory: Application to ESG performance evaluation of state-owned mining enterprises	Environmental (GHG emissions, wastewater toxic gas emissions, energy saving and emission reduction, tailings discharge), social (supply chain management, product management, employee management, human resource management, occupational health and safety, public welfare, and philanthropy), governance (board effectiveness, ESG risk management, executive compensation, business ethics, ownership concentration)	Quantitative	ESG performance
37	Environmental, social and governance (ESG) rating prediction using machine learning approaches	ESG	Quantitative	ESG rating
38	ESG consideration in venture capital: Drivers, strategies and barriers	ESG	Qualitative.	ESG consideration
39	The impact of equity analysts on ESG performance: Evidence from an exogenous shock	ESG	Quantitative	ESG performance
40	Warm-glow investment and the underperformance of green stocks	Environmental (waste management, packaging materials and waste, climate change, environmental management systems, water stress, biodiversity and land use, raw material sourcing)	Quantitative	ESG investing
41	Determinants of environmental, social, and governance (ESG) disclosure in fashion industry: An empirical study	ESG	Quantitative	ESG disclosure

Table A.1. Analysis of ESG factors as well as approaches to theme-based ESG factors (Part 3)

No.	Title	ESG factors	Approach	Theme
42	ESG leverage towards stock performance in Indonesia Stock Exchange	Environmental (carbon emissions and waste management), social (social impact, product quality, and responsible investment), governance (reputation, leader accountability, business ethics, and the company's code of ethics)	Mixed-method	ESG leverage
43	The impact of environmental uncertainty on ESG performance: emotional vs. Rational	ESG	Mixed-method	ESG performance
44	Socially responsible investment behavior: A study of individual investors from India	ESG	Mixed method	SRI
45	Relative impact of the U.S. energy market sentiments on stocks and ESG index returns: Evidence from GCC countries	ESG	Quantitative	ESG index returns
46	Developing the ESG rating methodology for Russian companies	Environmental (climate change, natural resources, environmental pollution), social (human capital, local communities, security), governance (corporate governance, corporate structure)	Quantitative	ESG performance
47	Does digital innovation cause better ESG performance? An empirical test of a-listed firms in China	ESG	Quantitative	ESG performance
48	Is ESG mutual fund quality in the eye of the beholder? An experimental study of investor responses to ESG fund strategies	ESG	Mixed method	ESG investment
49	Aggregate confusion or inner conflict? An experimental analysis of investors' reaction to green washing	Environmental	Mixed method	Sustainable investment
50	Institutional investors, alternative asset managers, and ESG preferences	ESG	Mixed method	ESG preferences
51	Ensuring the efficiency of regulation and development of ESG rating methodology for Russian companies	Environmental (climate change, natural resources, environmental pollution), social (human capital, local communities, security), governance (corporate governance, corporate structure)	Mixed-method	ESG performance
52	Natural resources and green economic recovery in responsible investments: Role of ESG in context of Islamic sustainable investments	Environmental (climate change, carbon emissions, GHG emissions)	Quantitative	Sustainable investment
53	Sustainable investment — Exploring the linkage between alpha, ESG, and SDGS	ESG	Quantitative	Sustainable investment
54	Sustainable thematic investing: Identifying opportunities based on an analysis of stewardship reports	Environmental (climate change and promoting renewable energy), social (social equity, health, education, and overall societal well-being)	Qualitative	Sustainable investment
55	The strategic choice of payment method in takeovers: the role of environmental, social and governance performance	ESG	Quantitative	ESG performance
56	Do sovereign wealth funds value ESG engagement? Evidence from target firm's CSR performance	ESG	Quantitative	ESG engagement
57	How does an investor prioritize ESG factors in India? An assessment based on fuzzy AHP	ESG	Quantitative	ESG factors
58	Does local Confucian culture affect corporate environmental, social, and governance ratings? Evidence from China	ESG	Quantitative	ESG rating
59	ESG score and mutual fund performance: Empirical evidence from India	ESG	Quantitative	ESG score
60	Do values predict socially responsible investment decisions? Measuring the moderating effects of gender	Environmental	Quantitative	SRI
61	Determinants of individual sustainable investment behavior — A framed field experiment	ESG	Mixed method	Sustainable investment
62	Institutional shareholders and firm ESG performance: Evidence from China	ESG	Quantitative	ESG performance
63	Corporations' ESG for sustainable investment in China: The moderating role of regional marketization	ESG	Quantitative	Sustainable investment

Table A.1. Analysis of ESG factors as well as approaches to theme-based ESG factors (Part 4)

<i>No.</i>	<i>Title</i>	<i>ESG factors</i>	<i>Approach</i>	<i>Theme</i>
64	The value relevance of ESG practices in Japan and Malaysia: moderating roles of CSR award, and former CEO as a board chair	ESG	Quantitative	ESG practices
65	Impact of environmental, social, and governance activities on the financial performance of Indian health care sector firms: Using competition as a moderator	ESG	Quantitative	ESG financial performance
66	An analysis of volatility and risk-adjusted returns of ESG indices in developed and emerging economies	ESG	Quantitative	ESG rating
67	Developing Islamic sustainable and responsible investment criteria: An overview	ESG	Qualitative	Sustainable and responsible investment
68	Categorizing and understanding the evolution of literature on ESG investments: A bibliometric analysis	ESG	Quantitative	ESG investments
69	Investing for a better tomorrow: Values-driven antecedents of investment in socially responsible equity funds by Indian retail investors	ESG	Mixed method	SRI
70	Socially responsible investments: A retrospective review and future research agenda	ESG	Mixed-method	SRI
71	ESG scores and cash holdings: The role of disciplinary trading	ESG	Quantitative	ESG rating
72	Between stakeholders and shareholders: Pension funds and labor solidarity in the age of sustainability	ESG	Qualitative	Sustainable investment
73	Environmental, social, and governance (ESG) model: Impacts and sustainable investment — Global trends and Poland's perspective	ESG	Qualitative	ESG model
74	ESG performance and technological change: Current state-of-the-art, development and future directions	Environmental (carbon emissions, waste management, and resource conservation), social (employee relations, community engagement, and social responsibility initiatives), governance (board diversity, transparency, and ethical business conduct)	Qualitative	ESG performance
75	Expanding the politics of measurement in sustainable finance: Reconceptualizing environmental, social and governance information as infrastructure	Environmental (climate change, pollution, resource management, and renewable energy), social (community relations, human rights, labor practices, diversity, and social responsibility), governance (transparency, accountability, ethical standards, and board oversight)	Mixed method	Reconceptualizing ESG information
76	The sustainability narrative: A multi study using event studies to analyze the American energy companies' shareholder's reaction to sustainability news	Environmental (carbon emissions, pollution levels, renewable energy initiatives), social (community relations, labor practices, and social responsibility initiatives), governance (transparency, ethical standards, and regulatory compliance within energy companies)	Quantitative	Sustainability
77	Investigating the double-edged sword effect of environmental, social and governance practices on corporate risk-taking in the high-tech industry	Environmental (carbon footprint, waste management, energy efficiency), social (employee relations, community engagement, diversity and inclusion), governance (corporate governance, transparency, ethical standards, board structure, risk management practices)	Quantitative	ESG practices
78	ESG performance, herding behavior and stock market returns: Evidence from Europe	ESG	Quantitative	ESG performance
79	I am ready to invest in socially responsible investments (SRI) options only if the returns are not compromised: Individual investors' intentions toward SRI	Environmental (pollution, GHG emissions, ozone depletion, and climate change)	Mixed method	SRI
80	Are ESG female? The hidden benefits of female presence on sustainable finance	Social (gender equality), governance (corporate governance)	Quantitative	ESG
81	Fund ratings of socially responsible investing (SRI) funds: A precautionary note	ESG	Quantitative	SRI
82	A plea for a stronger role of non-financial impact in the socially responsible investment discourse	ESG	Qualitative	SRI

Table A.1. Analysis of ESG factors as well as approaches to theme-based ESG factors (Part 5)

No.	Title	ESG factors	Approach	Theme
83	Socially responsible investing as competitive strategy for trading companies in times of upheaval amid COVID-19: Evidence from Spain	ESG	Mixed method	SRI
84	Factors affecting ESG towards impact on investment: a structural approach	Environmental (revenue conservation, GHG emission, deforestation and biodiversity, waste management and pollution control), social (human rights, employee relationship), governance (good governance, corporate policies)	Qualitative	ESG factors
85	Does a board characteristic moderate the relationship between CSR practices and financial performance? Evidence from European ESG firms	ESG	Quantitative	ESG firms
86	Communicating sustainable responsible investments as financial advisors: Engaging private investors with strategic communication	ESG	Qualitative	SRI
87	Socially responsible investment strategies for the transition towards sustainable development: The importance of integrating and communicating ESG	ESG	Qualitative	SRI
88	The effect of environmental sustainability on credit risk	Environmental	Quantitative	Environmental sustainability
89	Materiality in sustainability disclosures and investment portfolio performance in the Indian context	ESG	Quantitative	Sustainability disclosures
90	R&D investment, ESG performance and green innovation performance: Evidence from China	ESG	Quantitative	ESG performance
91	The predictive value of strategic orientation for ESG performance over time	ESG	Quantitative	ESG performance
92	The integration of conventional equity indices with environmental, social, and governance indices: Evidence from emerging economies	ESG	Quantitative	ESG rating
93	Drivers of socially responsible investments across Europe	Environmental and social	Quantitative	SRI
94	The environmental, social, and governance (ESG) dimension of firms in which socially responsible investment (SRI) and conventional pension funds invest: the mainstream SRI and the ESG inclusion	ESG	Quantitative	SRI and the ESG inclusion
95	Passive ESG portfolio management — The benchmark strategy for socially responsible investors	ESG	Quantitative.	ESG portfolio
96	Sustainable funds' performance evaluation	ESG	Quantitative	Sustainable investment
97	Effect of financial knowledge and information behavior on sustainable investments: Evidence from India	ESG	Quantitative	Sustainable investment
98	2008's mistrust vs 2020's panic: Can ESG hold your institutional investors?	ESG	Quantitative	ESG and institutional investors
99	Does better environmental, social, and governance induce better corporate green innovation: The mediating role of financing constraints	ESG	Quantitative	ESG and financing constraints
100	Why don't asset managers accelerate ESG investing? A sentiment analysis based on 13,000 messages from finance professionals	ESG	Mixed methods	ESG investing
101	Will the DAX 50 ESG establish the standard for German sustainable investments? A sustainability and financial performance analysis	Environmental (carbon emissions, GHG emission, providing clean energy, water sanitation, pollution prevention), social (human rights, labor rights), governance (corporate governance)	Mixed method	ESG and sustainable investments
102	Measuring investments progress in ecological transition: The green investment financial tool (GIFT) approach	Environmental (climate change, water management, biodiversity, pollution prevention)	Mixed method	Sustainable investment
103	Does ESG compliance boost Indian companies' and investors' immunity against economic uncertainties: An empirical study?	ESG	Quantitative	ESG compliance
104	Environmental, social, and governance factors in emerging markets: A volatility study	ESG	Quantitative	ESG factors

Table A.1. Analysis of ESG factors as well as approaches to theme-based ESG factors (Part 6)

No.	Title	ESG factors	Approach	Theme
105	Environmentally friendly and socially responsible investment in and by occupational pension funds in the USA and in the EU	ESG	Qualitative	SRI
106	Disclosures of ESG misconducts and market valuations: Evidence from DAX companies	Environmental (ecological disaster, pollution, carbon emission, toxic waste, hazardous waste, radioactive waste), social (labor disputes, harassment, discrimination, labor standard, child labor, human rights), governance (bribery, corruption, fraud, embezzlement, laundering, tax evasion, insider, whistleblower, cartel)	Quantitative	ESG disclosure
107	Emerging new themes in environmental, social and governance investing: A systematic literature review	Environmental (climate change,) social (human rights)	Qualitative	ESG investing
108	Measuring sustainability risks: A rational myth?	ESG	Qualitative	ESG rating
109	Determinants of environmental, social and governance disclosures of top 100 standard and poor's Bombay Stock Exchange firms listed in India	ESG	Quantitative	ESG disclosure
110	Can student managed investment funds (SMIFS) narrow the environmental, social and governance (ESG) skills gap?	ESG	Mixed method	ESG skills
111	Ethical decisions of leaders in sustainable investing to promote sustainable development	Environmental (climate change), social (human rights), governance (risk management, stakeholder right)	Mixed method	Sustainable investing
112	Sustainable investing model for decision makers (Based on research of manufacturing industry in the Czech Republic)	Environmental (climate change, pollution control, land remediation, environmental impact of products, energy use, water consumption, waste, recycling), social (human rights, diversity, labor practices, community engagement, charitable donations, product safety), governance (code of conduct, board structure, board independence, audit committee independence, compensation, bribery, reporting)	Mixed method	ESG criteria
113	The impact of material and immaterial sustainability on firm performance: The moderating role of franchising strategy	ESG	Quantitative	Sustainability
114	Health and investment: how are the 237 billion euro of the German professional pension funds invested?	ESG	Mixed method	Sustainability
115	The impact of corporate governance on the integrated reporting quality of Indonesian listed firms: moderating role of CSR disclosure and corporate sustainability	Governance (corporate governance, stakeholder engagement, shareholder rights)	Quantitative	Sustainability
116	Does good ESG lead to better financial performances by firms? Machine learning and logistic regression models of public enterprises in Europe	Environmental (carbon footprint, natural resources), social (human rights, health and safety, gender equality), governance (stakeholder engagement)	Quantitative	ESG and financial performance
117	Integrating ESG factors in investment decisions by mutual fund managers: A case of selected Johannesburg Stock Exchange-listed companies	Environmental (natural resources, water management), social (health and safety)	Quantitative	ESG factors and responsible investment
118	Does accounting-based financial performance value environmental, social and governance (ESG) disclosures? A detailed note on a corporate sustainability perspective	ESG	Quantitative	ESG disclosure
119	Environmental compliance and financial performance of Shariah-compliant enterprises — A data-driven analysis	Environmental (pollution and wildlife preservation), social (unemployment rates and wage disparity), governance (regulating environmental and labor policies)	Quantitative	ESG and financial performance
120	Personal values as drivers of socially responsible investments: A moderation analysis	ESG	Quantitative	SRI
121	Alternative ESG ratings: How technological innovation is reshaping sustainable investment	Environmental (GHG emissions), social (employee health, safety and well-being labor relation), governance (business ethics and transparency of payments)	Mixed method	ESG rating and sustainable investment

Table A.1. Analysis of ESG factors as well as approaches to theme-based ESG factors (Part 7)

No.	Title	ESG factors	Approach	Theme
122	ESG integration treats ethics as risk, but whose ethics and whose risk? Responsible investment in the context of precarity and risk-shifting	ESG	Qualitative	ESG integration
123	The effect of social and ethical practices on environmental disclosure: Evidence from an international ESG data	ESG	Quantitative	ESG disclosure
124	ESG as waving banners and as pulling plows	ESG	Qualitative	ESG investors
125	Divergent ESG ratings	ESG	Quantitative	ESG investing
126	ESG factor integration into private equity	Environmental (carbon emissions, reducing waste, and preventing the mistreatment of animals), social (human rights, fighting child labor, engaging stakeholders, protecting diversity, protecting and promoting equal opportunity, protecting privacy and data, providing support in humanitarian crises, supporting community development, supporting employee safety, education and health, and promoting work-life balance), governance (board composition, committee structure, bribery and corruption prevention, whistleblowing, codes of conduct, and fair compensation policies)	Mixed method	ESG factor integration
127	A systematic literature review of socially responsible investment and environmental social governance metrics	ESG	Qualitative	ESG and SRI
128	Rho AI — Leveraging artificial intelligence to address climate change: Financing, implementation and ethics	Environmental (climate change)	Qualitative	ESG investing
129	The performance of socially responsible investing from retail investors' perspective: International evidence	ESG	Quantitative	SRI
130	Investors' carbon risk exposure and their potential for shareholder engagement	Environmental (carbon emission, carbon footprint,)	Quantitative	Carbon emission and investors behavior
131	ESG disclosures and stock price crash risk	ESG	Quantitative	ESG disclosure
132	Responsible investments: An analysis of preference—the influence of local political views on the return on ESG portfolios	ESG	Quantitative	Responsible investment and ESG portfolios
133	Are investors aware of climate-related transition risks? Evidence from mutual fund flows	Environmental (climate change)	Quantitative	Investor's awareness
134	The impact of COVID-19 on investors' investment intention of sustainability-related investment: Evidence from China	Environmental (biodiversity, waste, biodiversity, water and effluents), social (customer privacy, health and safety, human rights, child labor)	Mixed method	Sustainable investment
135	Higher expected returns for investors in the energy sector in Europe using an ESG strategy	Environmental (global warming, deforestation, water and air pollution, land exploitation, and biodiversity), social (gender policies, human rights protection, labor standards, workplace and product safety, public health, and income distribution), governance (board of administration independence, shareholder rights, management remuneration, control methods, and anti-competitive practices, as well as legal compliance)	Quantitative	ESG strategy
136	The increasing importance of environmental sustainability in global real estate investment markets	Environmental (climate change, carbon emission)	Quantitative	Environmental sustainability
137	Similarities among equities returns in multi-frequencies: Insights from sustainable responsible investing	ESG	Quantitative	Sustainable responsible investing
138	Environmental key performance indicators: The role of regulations and stakeholder influence	Environmental (GHG emissions, renewable energy, waste management, water stress)	Mixed method	Environmental key performance indicators
139	ESG ratings: an industry in need of a major overhaul	ESG	Quantitative	ESG ratings

Table A.1. Analysis of ESG factors as well as approaches to theme-based ESG factors (Part 8)

No.	Title	ESG factors	Approach	Theme
140	Do companies in different industries respond differently to stakeholders' pressures when prioritizing environmental, social and governance sustainability performance?	ESG	Quantitative	ESG disclosure
141	Corporate social responsibility and market efficiency: Evidence from ESG and misevaluation measures	ESG	Quantitative	ESG and misevaluation measures
142	Long-term sustainable investment for retirement	ESG	Quantitative	ESG and sustainable investment
143	Sustainability in Asia: The roles of financial development in environmental, social and governance (ESG) performance	Environmental (pollution, ozone layer depletion, and soil erosion grip global attention, air pollution, climate change), social (labor standard, gender and diversity, employee engagement, community relations, and human rights), governance (risk management, information symmetries and transparency, business ethics, and shareholders rights)	Quantitative	ESG performance
144	Empirical study on the effect of environmental, social and governance factors on sovereign funding costs	ESG	Quantitative	Effect of ESG factors
145	Do sustainability practices influence financial performance? Evidence from the Nordic financial industry	Environmental (pollution, biodiversity loss, GHG emissions, waste management, renewable energy, energy efficiency), social (quality of life, well-being, diversity; equality, employee relations and human capital management), governance (internal control, routines, board, diversity, independence, information transparency, and risk management)	Quantitative	ESG and sustainability practices
146	ESG washing in the mutual funds industry? From information asymmetry to regulation	ESG	Quantitative	SRI and ESG
147	The impact of ESG factors on asset returns: empirical research	ESG	Mixed method	ESG factors
148	Do socially responsible investment funds sell losses and ride gains? The disposition effect in SRI funds	ESG	Quantitative	SRI
149	Would overconfident CEOs engage more in environment, social, and governance investments? With a focus on female representation on boards	Environmental (carbon emissions and water pollution), social (employee welfare and customer-related information), governance (board composition)	Quantitative	ESG investments
150	Past, present, and future of sustainable finance: Insights from big data analytics through machine learning of scholarly research	ESG	Quantitative	Sustainability
151	Sustainable finance and investment: review and research agenda	ESG	Qualitative	Sustainable investment
152	Revisiting the determinants of individual sustainable investment — The case of Japan	ESG	Mixed method	Sustainable investment
153	Equity mutual funds' interest in the environmental, social and governance policies of target firms: Does gender diversity in management teams' matter?	Social (gender diversity)	Quantitative	ESG policies
154	Opportunities to increase financial well-being by investing in environmental, social and governance with respect to improving financial literacy under COVID-19: The case of Latvia	Environmental (climate change, natural capital, pollution and waste, environmental opportunities), social (human capital, product liability, stakeholder opposition, social opportunities), governance (corporate governance, corporate behavior)	Quantitative	ESG investing
155	Is ESG the succeeding risk factor?	ESG	Quantitative	ESG investment and sustainability
156	Selecting socially responsible portfolios: A fuzzy multicriteria approach	ESG	Quantitative	Sustainable investment
157	The financial and market consequences of environmental, social and governance ratings: The implications of recent political volatility in Egypt	ESG	Quantitative	ESG rating
158	Responsible or thematic? The true nature of sustainability-themed mutual funds	Environmental (natural disasters, climate change mitigation, and water-related extreme events), social (healthcare, food safety), governance (transparency)	Quantitative	ESG investing

Table A.1. Analysis of ESG factors as well as approaches to theme-based ESG factors (Part 9)

No.	Title	ESG factors	Approach	Theme
159	Towards a more ethical market: The impact of ESG rating on corporate financial performance	ESG	Quantitative	ESG rating
160	Exploring the strategic variety of socially responsible investment: Financial performance insights about SRI strategy portfolios	ESG	Quantitative	SRI
161	Value matters or values matter? An analysis of heterogeneity in preferences for sustainable investments	Environmental (environmental protection) social (human rights) governance (corruption)	Quantitative	Sustainable investments
162	Why don't we see more action? A metasynthesis of the investor impediments to integrate environmental, social, and governance factors	ESG	Qualitative	ESG factors and responsible investment
163	Corporate scandals and the reliability of ESG assessments: Evidence from an international sample	ESG	Quantitative	ESG rating

Table A.2. Ranking among published journals (Part 1)

No.	Source title	No of articles	% of total articles
1	<i>Accounting and Finance</i>	1	0.61%
2	<i>Accounting Research Journal</i>	1	0.61%
3	<i>Advances in Decision Sciences</i>	1	0.61%
4	<i>Annals of Operations Research</i>	3	1.84%
5	<i>Australasian Accounting, Business and Finance Journal</i>	1	0.61%
6	<i>Business Ethics, the Environment and Responsibility</i>	1	0.61%
7	<i>Business Strategy and the Environment</i>	10	6.13%
8	<i>Corporate Governance (Bingley)</i>	5	3.07%
9	<i>Corporate Social Responsibility and Environmental Management</i>	3	1.84%
10	<i>Credit and Capital Markets</i>	2	1.23%
11	<i>Critical Sociology</i>	1	0.61%
12	<i>Ecological Economics</i>	1	0.61%
13	<i>Economic Analysis and Policy</i>	1	0.61%
14	<i>Economic Research-Ekonomska Istrazivanja</i>	1	0.61%
15	<i>Emerging Markets Finance and Trade</i>	1	0.61%
16	<i>Energy Economics</i>	2	1.23%
17	<i>Engineering Economics</i>	1	0.61%
18	<i>Environment and Planning C: Politics and Space</i>	1	0.61%
19	<i>Environment Systems and Decisions</i>	1	0.61%
20	<i>Environment, Development and Sustainability</i>	1	0.61%
21	<i>EuroMed Journal of Business</i>	1	0.61%
22	<i>European Business Organization Law Review</i>	1	0.61%
23	<i>European Journal of Finance</i>	1	0.61%
24	<i>European Journal of Social Security</i>	1	0.61%
25	<i>European Labour Law Journal</i>	1	0.61%
26	<i>Finance Research Letters</i>	4	2.45%
27	<i>Finance: Theory and Practice</i>	1	0.61%
28	<i>Frontiers in Environmental Science</i>	1	0.61%
29	<i>Global Business Review</i>	2	1.23%
30	<i>Indian Journal of Finance</i>	1	0.61%
31	<i>Institutions and Economics</i>	1	0.61%
32	<i>International Journal of Economics and Finance Studies</i>	1	0.61%
33	<i>International Journal of Energy Economics and Policy</i>	2	1.23%
34	<i>International Journal of Environmental Research and Public Health</i>	1	0.61%
35	<i>International Journal of Ethics and Systems</i>	1	0.61%
36	<i>International Journal of Finance and Economics</i>	1	0.61%
37	<i>International Journal of Financial Studies</i>	1	0.61%
38	<i>International Journal of Management and Sustainability</i>	1	0.61%
39	<i>International Journal of Sustainable Development and Planning</i>	1	0.61%
40	<i>International Review of Economics and Finance</i>	1	0.61%
41	<i>Investment Management and Financial Innovations</i>	1	0.61%
42	<i>Journal of Asset Management</i>	1	0.61%
43	<i>Journal of Banking and Finance</i>	1	0.61%
44	<i>Journal of Behavioral and Experimental Finance</i>	1	0.61%
45	<i>Journal of Business Ethics</i>	1	0.61%
46	<i>Journal of Cleaner Production</i>	6	3.68%
47	<i>Journal of Corporate Accounting and Finance</i>	1	0.61%
48	<i>Journal of Economic Behavior and Organization</i>	1	0.61%
49	<i>Journal of Emerging Market Finance</i>	1	0.61%
50	<i>Journal of Environmental Management</i>	1	0.61%
51	<i>Journal of Global Responsibility</i>	1	0.61%
52	<i>Journal of Information Technology Teaching Cases</i>	1	0.61%
53	<i>Journal of Law and Sustainable Development</i>	1	0.61%
54	<i>Journal of Open Innovation: Technology, Market, and Complexity</i>	1	0.61%
55	<i>Journal of Portfolio Management</i>	2	1.23%
56	<i>Journal of Property Investment and Finance</i>	1	0.61%
57	<i>Journal of Risk and Financial Management</i>	4	2.45%
58	<i>Journal of Sustainable Finance and Investment</i>	9	5.52%

Table A.2. Ranking among published journals (Part 2)

No.	Source title	No of articles	% of total articles
59	<i>Journal of System and Management Sciences</i>	1	0.61%
60	<i>Kybernetes</i>	1	0.61%
61	<i>Management Decision</i>	1	0.61%
62	<i>Managerial Finance</i>	2	1.23%
63	<i>Oeconomia Copernicana</i>	1	0.61%
64	<i>Operational Research</i>	1	0.61%
65	<i>Relacoes Internacionais no Mundo Atual</i>	1	0.61%
66	<i>Research in International Business and Finance</i>	2	1.23%
67	<i>Resources Policy</i>	2	1.23%
68	<i>Resources, Conservation and Recycling</i>	1	0.61%
69	<i>Review of Accounting and Finance</i>	1	0.61%
70	<i>Review of Behavioral Finance</i>	2	1.23%
71	<i>Review of Economic Analysis</i>	1	0.61%
72	<i>Review of Economics and Finance</i>	1	0.61%
73	<i>Review of Managerial Science</i>	1	0.61%
74	<i>Revista de Gestao Social e Ambiental</i>	1	0.61%
75	<i>Risks</i>	2	1.23%
76	<i>Singapore Economic Review</i>	1	0.61%
77	<i>Social Indicators Research</i>	1	0.61%
78	<i>Social Responsibility Journal</i>	2	1.23%
79	<i>Sri Lanka Journal of Social Sciences</i>	1	0.61%
80	<i>Studies in Business and Economics</i>	1	0.61%
81	<i>Studies in Economics and Finance</i>	1	0.61%
82	<i>Sustainability (Switzerland)</i>	27	16.56%
83	<i>Sustainability Accounting, Management and Policy Journal</i>	2	1.23%
84	<i>Sustainable Development</i>	1	0.61%
85	<i>Technological Forecasting and Social Change</i>	1	0.61%
86	<i>Tourism Management</i>	1	0.61%
87	<i>TQM Journal</i>	1	0.61%
88	<i>Vision</i>	1	0.61%
89	<i>Zeitschrift fur Evidenz, Fortbildung und Qualitat im Gesundheitswesen</i>	1	0.61%
Total		163	