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Global research patterns in corporate social responsibility within electronic commerce: A bibliometric analysis

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Abstract: This study examines the importance of corporate social responsibility (CSR) in e-commerce literature by locating and collecting data from academic publications. By doing a search using specific terms such as “e-commerce,” “electronic commerce,” and “corporate social responsibility” in a prominent online publisher’s database from 2001 to 2023, our analysis reveals the increasing importance of CSR matters in the field of e-commerce. Multiple levels of observation have identified this growing trend (conceptual, geographical, and technological). This article primarily focuses on providing a conceptual framework that provides the economic reason for the increasing interest in corporate social responsibility (CSR) issues in the field of electronic commerce. While there are several ethical and social aspects that can account for this interest, this research specifically explores the complementary justification.

Keywords: decision-making; grounded theory; local authority; moral heuristics; public sector

1. Introduction

This paper delves into the vital realm of corporate social responsibility (CSR) within the dynamic landscape of e-commerce. CSR involves weaving social and environmental considerations seamlessly into a company’s everyday operations and interactions with stakeholders. It stands as a widely embraced approach where companies aim to harmonise economic, environmental, and social objectives effectively. Successfully navigating this terrain requires the involvement of various stakeholders, including global logistics companies, e-commerce corporations, regulatory authorities, labour unions, consumers, and non-governmental organisations (NGOs) [1,2]. Companies must understand the wider range of industries and cooperate with a varied group of individuals and organisations, all striving to reduce negative factors in both their own operations and the external environment [3]. The sustainability concerns in e-commerce encompass issues of responsibility, handling intricate products and services, and addressing performance indicators on a worldwide level.

The proliferation of medium- to large-scale multinational firms has stimulated an increasing recognition of yearly reports, sustainable strategies, and revised codes of conduct. These endeavours demonstrate a growing awareness of the need for e-commerce to be sustainable, taking into account social norms, religious duties, and customary practices [4,5]. These programmes assist organisations in implementing eco-friendly practices, reducing environmental impact through effective logistics, and adhering to corporate social responsibility (CSR) standards, all while taking into account the triple bottom line of social, environmental, and financial concerns [6].

This study has two main goals: Firstly, to examine the present significance of corporate social responsibility (CSR) and sustainable e-commerce in the existing body of literature; secondly, to provide an economic perspective that elucidates the increasing interest in CSR practices. In order to accomplish this, the study investigates scholarly articles that analyse e-commerce tactics, using datasets from 2001 to 2023. The study specifically concentrates on the occurrence of the terms “e-commerce” and “corporate social responsibility” in the abstracts or titles of these articles. The investigation seeks to discern patterns that indicate the growing significance of CSR in electronic commerce. The main objective is to evaluate the increasing prevalence of CSR as a fashionable word in scholarly literature and its growing significance as a matter of concern.

The paper adheres to a systematic framework, commencing with an exhaustive examination of existing literature on corporate social responsibility (CSR) practices in the field of logistics. It employs a systematic approach to assessing documents as a tool for identifying patterns and offering possible interpretations. Although the literature review does not expressly concentrate on corporate social responsibility (CSR) in electronic commerce, the following sections explore the methodology and data analysis of the study and ultimately provide an economic rationale for the increasing importance of CSR issues in logistics. This encompasses a conceptual framework illustrating how CSR policies exert influence on a firm’s financial value.

Upon scrutinising research on corporate social responsibility, a discernible surge in global recognition of CSR by corporations becomes apparent. Companies worldwide are progressively acknowledging their responsibility to champion sustainable and socially conscious practices, particularly in the realm of e-commerce. The integration of technology and business ethics in e-commerce offers a distinct framework for comprehending firms’ corporate social responsibility (CSR) initiatives.

According to Milton Friedman’s 1970 essay, the main goal of CSR is to ensure ethical and socially responsible treatment of all stakeholders and promote human development [7]. In 1999, there was a notable development in the business world with the introduction of corporate codes of ethics, triple-bottom-line reports, and public relations campaigns that aimed to define socially responsible corporate activity. At the time, these behaviours were seen as symbolic [8]. This impact extends to areas like profitability, growth, and operational efficiency. Furthermore, corporate social responsibility can lead to a reduction in capital expenses, thereby making a collective contribution to the overall value of the company [9,10]. During the 1980s, scholars placed a high value on corporate social performance as a result of growing public apprehension towards social matters [11]. During the 1990s, this phenomenon became widespread on a global scale [12]. Surveys suggest an increasing focus on social problems in the field of electronic commerce. The trend is underscored by doing a content study of literature on sustainable practices [13], providing an insightful review of socially responsible sourcing [14], and utilising network analysis to demonstrate the increasing emphasis on CSR issues in e-commerce literature [15].

2. Methodology

We undertook a methodical investigation to uncover the significance of work that focuses on corporate social responsibility (CSR) activities. Our quest for insights was guided by a systematic approach (see **Table 1**), which can be described as a precise methodology that involves locating existing studies, selecting and contributing to them, analysing and synthesising data, and reporting the evidence in a manner that enables clear and reasonable conclusions to be drawn about what is known and what is not known. By utilising a systematic review as our selected approach, our objective was to gather unaltered data regarding the frequency of corporate social responsibility (CSR) in literature, specifically focusing on the e-commerce sector.

Table 1. Selection criteria for articles.

Steps 2 and 3: Choosing the criteria	Description
Keywords	Corporate social responsibility, electronic commerce, e-commerce
Language & document type	English peer-reviewed academic journals
Time interval	2001–2023

The objective of our study is not to offer a comprehensive analysis of the CSR literature but rather to utilise a systematic review to illuminate its prevalence. Our research utilised a six-stage classification approach to examine the importance of CSR in e-commerce literature. This approach allowed us to establish a structured foundation for our analysis.

At first, we discovered a crucial data point in 2001 from the initial e-commerce and CSR documents we came across during our search. To ensure high standards, we omitted conference proceedings, work in progress, and technical reports from our analysis [16–18]. In order to achieve thorough and extensive coverage, we enhanced our search of academic literature by focusing specifically on English peer-reviewed publications, utilising platforms such as Scopus [19]. The appendix complements our research by providing comprehensive bibliographic information for each reviewed publication, guaranteeing transparency and lucidity [20].

The third phase entailed a thorough examination of publications from Scopus, covering a time period of twenty-three years starting in 2001. Every selected paper was subjected to meticulous examination, with the writers evaluating the information contained in the titles, abstracts, and main text to ensure its relevance and credibility [21,22]. Expanding upon the systematic review, the fourth phase involved organising our research materials by categorising 917 articles from seven prominent databases according to the journal of publication, year of publication, geographic area, industry, and authors.

The fifth step was the analysis of the importance of CSR literature, with the objective of understanding present patterns and potential implications for future studies. The final step entails presenting a conceptual framework that provides a formalised approach to economic reasoning that has the potential to elucidate the observed trends in the empirical data. Below is a concise overview of our approach, as depicted in **Figure 1**.

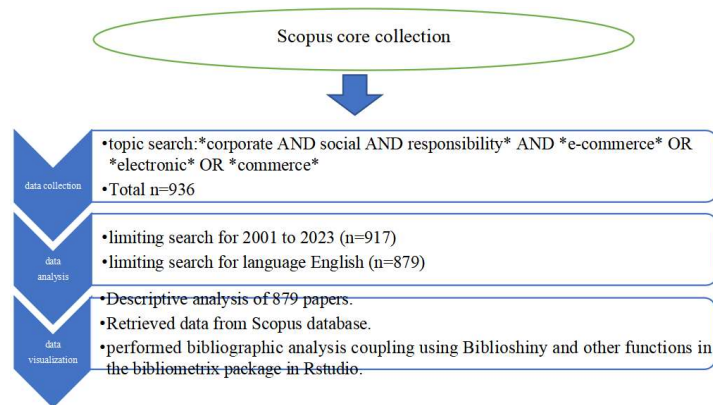


Figure 1. The selection strategy.

This bibliometric approach effectively handles data connected to publications, producing a strong empirical methodology. Our main goal is not to conduct a typical literature review but instead to analyse and categorise the growing amount of information about CSR issues in e-commerce. We will use a unique approach that differs from prior surveys on this topic. In the following section, we will show our data analysis.

2.1. Data presentation

The document's type, year, subject matter, number of authors, citations, keywords, and source type were all established by an analysis of the collected data (see **Table 2**). The data were presented in the form of frequencies and percentages for quantitative analysis.

Table 2. Main information.

Main information about data	
Timespan	2001–2023
Sources (journals, books, etc.)	552
Documents	871
Annual growth rate %	17.79
Document average age	7.08
Average citations per doc	23.24
References	1
Document contents	
Keywords plus (ID)	3966
Author's keywords (DE)	2156
Authors	-
Authors	2032
Authors of single-authored docs	195
Authors collaboration	-
Single-authored docs	221
Co-authors per doc	2.66
International co-authorships	22.85

The number of articles published annually is rising: from 2001 to 2023, 917 articles were published. The number of articles published annually after that shows a decreasing pattern (**Figure 2**).

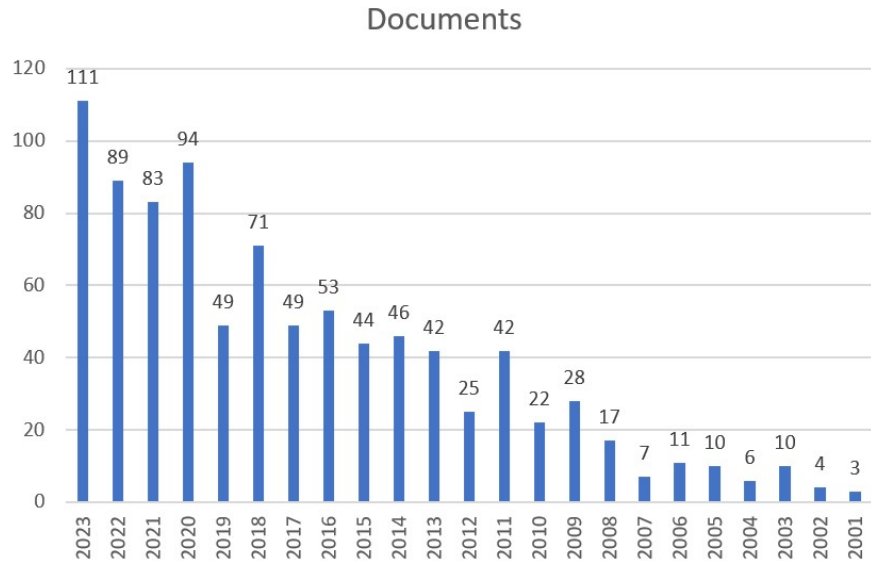


Figure 2. Number of research papers.

2.2. Productivity analysis

Productivity refers to the quantification of an author’s output in terms of the number of papers they have published within a specific timeframe, or the number of articles published inside a journal during that same timeframe. **Figure 3** indicates that out of the 879 research papers published over the specified period, the top three journals in this field for published studies are the Journal of Cleaner Production, Environmental Science and Pollution, and the International Journal of Environmental Research.

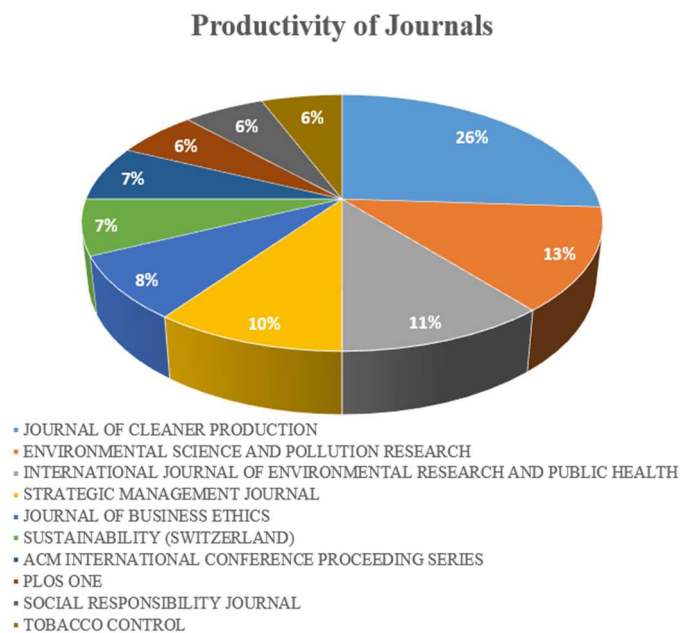


Figure 3. Productivity of journals.

2.3. Authors' performance analysis

According to **Table 3**, the first three authors, which represent 50% of the 879 research papers published during the period, NA NA have a total article of 28% out of 100%, and Zhang have a total article of 13% out of 100%, so the first three authors mostly perform for their publication. The top 10 authors in this field published their papers.

Table 3. Authors performance analysis.

Authors	Articles	% Total article
NA NA	20	28%
Zhang Y	9	13%
Li J	6	9%
Li Z	6	9%
Kraak VI	5	7%
Li X	5	7%
Wang X	5	7%
Zhang X	5	7%
Alas R	4	6%
Chen S	4	6%

Figure 4 shows the author's output over a period of time. The number of articles is indicated by the size of the circles; larger sizes correspond to more publications. A darker colour denotes more citations, and the colour of the circles represents the total number of citations per year.

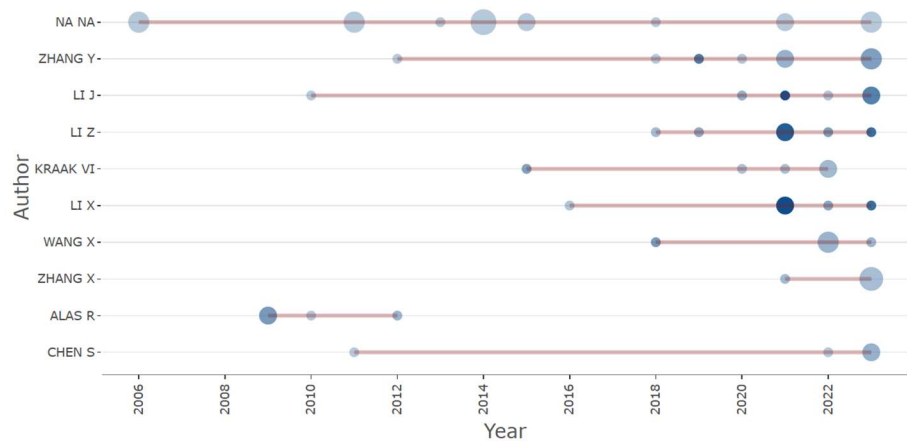


Figure 4. Authors' production over time.

2.4. Keyword analysis

Figure 5 depicts the substantial growth of electronic trade over time. This suggests that a multitude of researchers have shown a keen interest in it. Both the concepts of "corporate social responsibility" and "e-commerce" are experiencing a surge in popularity. This indicates that the study of e-commerce and the practical implementation of corporate social responsibility have led to a rise in consumer inclination towards utilising e-commerce platforms, with a notable exponential trend.

The term map visually represents the complex nature of user acceptability, which involves various domains such as CSR, human factors, and sustainable development.

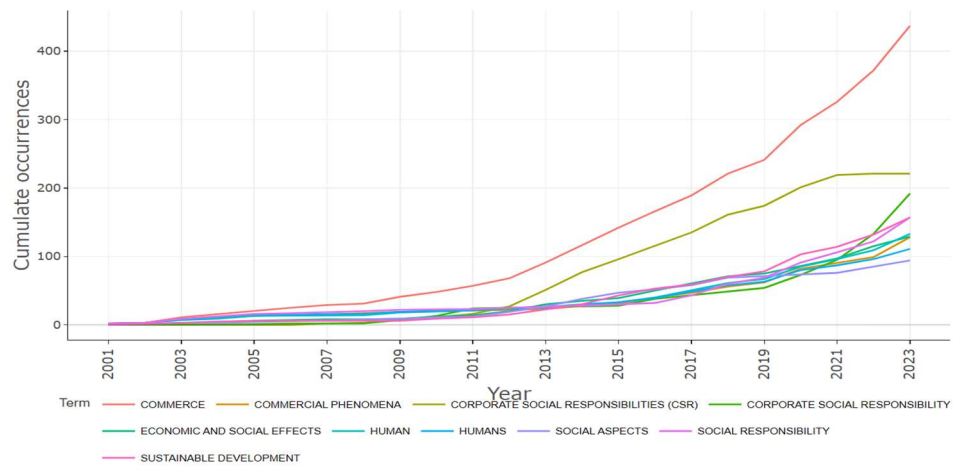


Figure 5. Words' frequency over time.

Figure 6 demonstrates that corporate social responsibility (CSR) and trade continue to be prominent subjects in the research articles being examined. In addition, the terms “CSR,” “sustainable development,” and “commercial phenomena” have been included and acknowledged. Previous searches utilising these terms together have yielded a result.



Figure 6. Word map of keywords.

The motor motifs are depicted in Figure 6. The search field is located in the upper right corner of the graph and is crucial due to its complete execution and strong associations with other themes. The primary concepts, which serve as the foundation of the particular publication series, are shown in the bottom left corner of the chart. Although they possess a low density, they exhibit a significant level of centrality [23,24]. Subjects exhibiting a high density and a low centrality can be characterised as having a high density and a low centrality, which can indicate different yet well-developed characteristics.

The thematic map analysis revealed that the main themes were sustainability, e-commerce, and corporate social responsibility, each with a particular emphasis. The field of e-commerce research has focused extensively on the topics of e-commerce and corporate social responsibility [25,26].

2.5. Potential directions for further study

The objective of our article was to analyse the complexities of corporate social responsibility (CSR) in e-commerce using bibliometric methods (see **Figure 7**). As academics negotiate the changing environment, we anticipate that our investigation will act as a starting point for new initiatives, connecting current areas of knowledge and addressing specific research requirements. Important areas for future research encompass the “last mile” obstacle in environmentally friendly business-to-consumer e-commerce distribution, as well as the wider effects of e-commerce on eco-friendly logistics, sustainability, and reverse logistics in electronic markets.

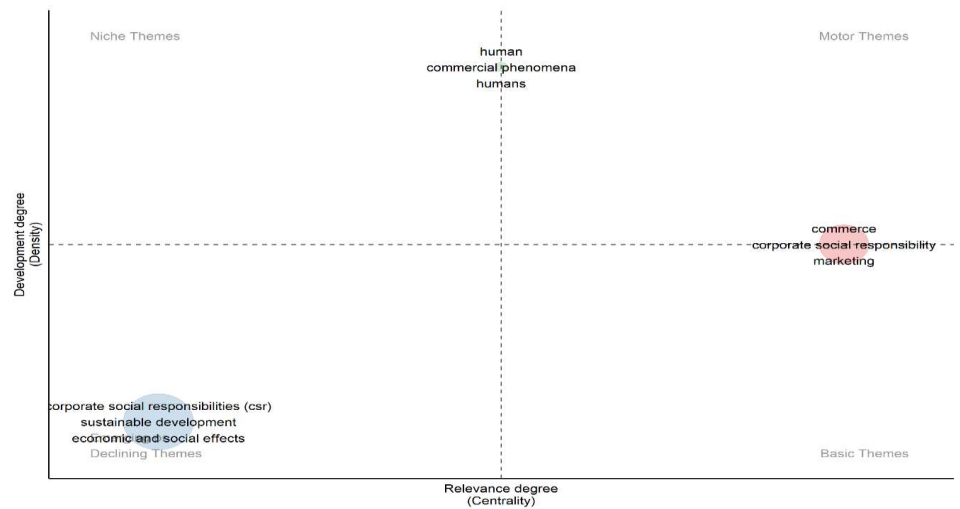


Figure 7. Thematic map of publications.

An essential question is how to evaluate the environmental sustainability and competitiveness of e-commerce supply networks [27]. With the rapid growth of global e-commerce, the issue of packaging sustainability has become increasingly important due to factors such as waste management and potential trade-offs. In order to attain sustainability in e-commerce, it is crucial to comprehensively evaluate social, environmental, and economic concerns, aiming for a state where the benefits outweigh the drawbacks. Investing in advanced digital marketing tactics can enable e-commerce enterprises to efficiently target customers, thereby minimising product returns and mitigating the burden on reverse logistics and the environment.

Further investigation into the concepts of social responsibility and social sustainability in the field of e-commerce is necessary. The convergence of sustainable development goals and their influence on e-commerce offers a compelling opportunity, prompting the creation of economically viable business models that capitalise on recent developments in artificial intelligence.

3. Conclusion and limitations

The growth of e-commerce has shown significant acceleration, particularly during the pandemic, and this trend is projected to continue [28]. Nevertheless, the increase in online sales is accompanied by a gradual environmental impact, leading customers to expect businesses to adopt eco-friendly methods [29]. Businesses face

difficulty finding a harmonious equilibrium between creating sustainable earnings and satisfying customer demands for environmental responsibility.

We were tasked with performing a literature analysis on consumer behaviour and sustainability in the field of e-commerce. Through an extensive search of the Scopus database, a total of 104 scholarly publications were identified. These articles were published between 2001 and April 2022 and involved a total of 342 different authors. This research explores precise data, providing insights on yearly paper manufacturing, influential scientific journals, highly-referenced articles, prolific writers, and frequently used keywords in publications.

Although our bibliometric analysis yields significant insights, it is imperative to recognise its limitations. Initially, our data collection exclusively relied on publications sourced from the Scopus database, which may have resulted in the exclusion of contributions from other databases. Furthermore, certain pertinent research may have been omitted, despite our exhaustive search criteria. Furthermore, despite our diligent attempts to conform to the objectives of the bibliometric analysis, subjectivity remains an inherent aspect of the analysis [30]. Furthermore, the act of referencing a piece of work can be impacted by a multitude of circumstances that extend beyond its academic worth [31], hence questioning the absolute dependability of citation counts for certain studies [32]. To summarise, this study aims to provide fresh views on corporate social responsibility (CSR) in the field of electronic commerce (e-commerce), urging scholars to integrate these viewpoints into their next attempts.

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References

1. United Nations Industrial Development Organization. Available online: <https://www.unido.org/our-focus/advancing-economic-competitiveness/competitive-trade-capacities-and-corporate-responsibility/corporate-social-responsibility-market-integration/what-csr> (accessed on 1 May 2024).
2. Christopher M. Logistics and Supply Chain Management, 5th ed. Pearson; 2016.
3. Chopra S, Meindl P. Supply Chain Management: Strategy, Planning, and Operation, 6th ed. Pearson; 2015.
4. Prokesch S. The sustainable supply chain. Available online: <https://hbr.org/2010/10/the-sustainable-supply-chain> (accessed on 1 May 2024).
5. Cohen S, Roussel J. Strategic Supply Chain Management: The Five Core Disciplines for Top Performance, 2nd ed. McGraw-Hill; 2013.
6. Greenstein S. Sustainability Starts with Supply Chain: Industry Week, Advancing the Business of Manufacturing. Available online: <http://www.industryweek.com/supplier-relationships/sustainability-starts-supply-chain> (accessed on 1 May 2024).
7. Dyllick T, Hockerts K. Beyond the Business Case for Corporate Sustainability. *Business Strategy and the Environment*. 2002; 11: 130-141. doi: 10.1002/bse.323
8. Kolpin DW, Furlong ET, Meyer MT, et al. Pharmaceuticals, Hormones, and Other Organic Wastewater Contaminants in U.S. Streams, 1999–2000: A National Reconnaissance. *Environmental Science & Technology*. 2002; 36(6): 1202-1211. doi:

- 10.1021/es011055j
9. Andersen M, Skjoett-Larsen T. Corporate social responsibility in global supply chains. Lindgreen A, ed. *Supply Chain Management: An International Journal*. 2009; 14(2): 75-86. doi: 10.1108/13598540910941948
 10. Friedman M. The Social Responsibility of Business Is to Increase Its Profits. *New York Time Magazine*. 1970; 13: 32-33.
 11. Pintea MO. The Relationship between Corporate Governance and Corporate Social Responsibility. *Review of Economic Studies & Research* Virgil Madgearu. 2015; 8: 91-108.
 12. Weaver GR, Trevino LK, Cochran PL. Integrated and decoupled corporate social performance: management commitments, external pressures, and corporate ethics practices. *Academy of Management Journal*. 1999; 42(5): 539-552. doi: 10.2307/256975
 13. Blazovich JL, Smith LM. Ethical Corporate Citizenship: Does It Pay? In: Jeffrey C (editor). *Research on Professional Responsibility and Ethics in Accounting*. Emerald Group Publishing Limited; 2011. pp. 127-163. doi: 10.1108/S1574-0765(2011)0000015008
 14. Kot S. Knowledge and Understanding of Corporate Social Responsibility. *Journal of Advanced Research in Law and Economics*. 2014; 5: 109-119.
 15. Carroll AB. A Three-Dimensional Conceptual Model of Corporate Performance. *The Academy of Management Review*. 1979; 4(4): 497. doi: 10.2307/257850
 16. John E. *Cannibals with Forks: The Triple Bottom Line of the 21st Century Business*. Capstone Publishing Ltd; 1997.
 17. Zorzini M, Hendry LC, Huq FA, et al. Socially responsible sourcing: reviewing the literature and its use of theory. *International Journal of Operations & Production Management*. 2015; 35(1): 60-109. doi: 10.1108/ijopm-07-2013-0355
 18. Reefke H, Sundaram D. Key themes and research opportunities in sustainable supply chain management – identification and evaluation. *Omega*. 2017; 66: 195-211. doi: 10.1016/j.omega.2016.02.003
 19. Feng Y, Zhu Q, Lai KH. Corporate social responsibility for supply chain management: A literature review and bibliometric analysis. *Journal of Cleaner Production*. 2017; 158: 296-307. doi: 10.1016/j.jclepro.2017.05.018
 20. Denyer D, Tranfield D. Chapter 39 Producing a Systematic Review. In: Buchanan D, Bryman A (editors). *The Sage Handbook of Organizational Research Methods*. Sage Publications; 2009. pp. 671-689.
 21. Jafari H. Logistics flexibility: a systematic review. *International Journal of Productivity and Performance Management*. 2015; 64(7): 947-970. doi: 10.1108/ijppm-05-2014-0069
 22. Tranfield D, Denyer D, Smart P. Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*. 2003; 14(3): 207-222. doi: 10.1111/1467-8551.00375
 23. Akbari M. Logistics outsourcing: a structured literature review. *Benchmarking: An International Journal*. 2018; 25(5): 1548-1580. doi: 10.1108/bij-04-2017-0066
 24. Touboulis A, Walker H. Theories in sustainable supply chain management: A structured literature review. *International Journal of Physical Distribution & Logistics Management*. 2015; 45(1/2): 16-42. doi: 10.1108/ijpdlm-05-2013-0106
 25. Clausen J, Blättel-Mink B, Erdmann L, et al. Contribution of Online Trading of Used Goods to Resource Efficiency: An Empirical Study of eBay Users. *Sustainability*. 2010; 2(6): 1810-1830. doi: 10.3390/su2061810
 26. Raman P. Examining the importance of gamification, social interaction and perceived enjoyment among young female online buyers in India. *Young Consumers*. 2020; 22(3): 387-412. doi: 10.1108/yc-05-2020-1148
 27. Lemos C, Ramos RF, Moro S, et al. Stick or Twist—The Rise of Blockchain Applications in Marketing Management. *Sustainability*. 2022; 14(7): 4172. doi: 10.3390/su14074172
 28. Paștiu CA, Oncioiu I, Gârdan DA, et al. The Perspective of E-Business Sustainability and Website Accessibility of Online Stores. *Sustainability*. 2020; 12(22): 9780. doi: 10.3390/su12229780
 29. Oláh J, Kitukutha N, Haddad H, et al. Achieving Sustainable E-Commerce in Environmental, Social and Economic Dimensions by Taking Possible Trade-Offs. *Sustainability*. 2018; 11(1): 89. doi: 10.3390/su11010089
 30. Falagas ME, Pitsouni EI, Malietzis GA, et al. Comparison of PubMed, Scopus, Web of Science, and Google Scholar: strengths and weaknesses. *The FASEB Journal*. 2007; 22(2): 338-342. doi: 10.1096/fj.07-9492lsf
 31. Vogel R, Güttel WH. The Dynamic Capability View in Strategic Management: A Bibliometric Review. *International Journal of Management Reviews*. 2012; 15(4): 426-446. doi: 10.1111/ijmr.12000
 32. Hota PK, Subramanian B, Narayanamurthy G. Mapping the Intellectual Structure of Social Entrepreneurship Research: A Citation/Co-citation Analysis. *Journal of Business Ethics*. 2019; 166(1): 89-114. doi: 10.1007/s10551-019-04129-4