

THE ROLE OF ESG STANDARDS IN EMERGING ECONOMIES' PARTICIPATION IN GLOBAL VALUE CHAINS: A LITERATURE REVIEW BASED ON SCOPUS DATA

Tran Thi Ngoc Lan^{1*}, Cao Thi Hoai²

¹*Ho Chi Minh City University of Industry and Trade*

²*Ho Chi Minh City University of Economics and Finance*

*Email: lanttn@huit.edu.vn

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ABSTRACT

In the current global economic context, alongside the accelerating trend toward green transition and sustainable development, Environmental, Social, and Governance (ESG) standards have become one of the key benchmarks with which firms are expected to comply. ESG criteria are increasingly regarded as critical determinants of firms' ability to participate in and upgrade their positions within global value chains (GVCs). In recent years, scholars have shown growing interest in examining the relationship between sustainable development and the extent of GVC participation in emerging economies. However, the existing literature remains fragmented, and there is still a lack of a comprehensive and systematic synthesis of the role of ESG in the process of global value chain integration. This study conducts a systematic review of publications from the past decade, based on the Scopus database, to identify how scholars conceptualize and analyze the relationship between ESG standards and GVC participation in emerging economies. Furthermore, the study clarifies the main research themes, emerging trends, and existing academic gaps in this field.

Keywords: ESG, emerging economies, global value chains (GVCs), bibliometric analysis.

1. INTRODUCTION

In the context of increasingly deep globalization, the participation of emerging economies in Global Value Chains (GVCs) has become an important driver for economic growth and structural transformation. Previous studies indicate that integration into GVCs not only helps expand export markets but also facilitates technology transfer, enhances productivity, and promotes industrial upgrading [1], [2].

However, this integration process is increasingly influenced by Environmental, Social, and Governance (ESG) standards, which are becoming a key framework shaping international trade and investment activities. ESG standards simultaneously act as both a catalyst and a challenge for emerging economies in their process of global economic integration [3]-[5].

The growing role of ESG reflects a shift from traditional growth models toward sustainable development, where non-financial factors are increasingly integrated into corporate and investor decision-making processes [1], [6]. Compliance with ESG standards not only helps firms enhance their reputation and access to international capital but also becomes a critical condition for deeper participation in GVCs, especially in highly monitored industries such as textiles, electronics, agriculture, and seafood [7]-[9]. Conversely, for

emerging economies, meeting ESG requirements presents multiple challenges related to compliance costs, institutional limitations, and technological capacity [1], [3], [10].

Therefore, the role of ESG in the participation of emerging economies in GVCs needs to be comprehensively assessed as both a driver for economic upgrading and a potential barrier for less developed countries [8], [11], [12]. Research from the perspective of ESG's impact on the level and quality of emerging economies' participation in global value chains helps clarify the opportunities and challenges posed by these standards in the context of deepening international economic integration [1], [4], [13], [14].

Based on this, the present study conducts a bibliometric analysis using Scopus data to provide a comprehensive overview of the role of ESG in the participation of emerging economies in GVCs [2], [4], [14]. Through a review of theoretical literature and analysis of academic data over the past decade, the study aims to explore, systematize, and synthesize prominent topics, while identifying knowledge gaps to propose future research directions. Academically, the study contributes to the integration of existing knowledge, conceptual development, clarification of research methods, and expansion of research scope in the field of global value chains [15]-[17].

From a practical perspective, emerging economies face an urgent need to transition from traditional business models, which focus solely on economic gains, to business strategies that are more responsible toward stakeholders and aligned with sustainable development principles. This shift not only helps firms create value within global value chains but also promotes inclusive participation of stakeholders in both emerging and global economies [5], [18], [19].

2. RESEARCH METHODOLOGY

2.1. Data Sources

One of the primary and most reliable data sources used in this study is the Scopus database, a comprehensive platform widely recognized in the fields of social sciences, management, and environmental studies. Data were collected through queries using the keywords “*ESG*” and “*Global Value Chains*” over the entire period of published research to date. Following the initial search, the results were further screened based on a set of rigorous criteria to ensure academic quality and data reliability.

Specifically, only peer-reviewed scientific articles published in reputable journals relevant to the research field were selected. Limiting the types of publications and the scope of the articles ensures that the conclusions drawn are based on authentic sources while enhancing academic value. This selection process also allows for in-depth analysis of data characteristics, including the number of citations, author names, institutional affiliations, countries of origin, and the scholarly connections between research topics.

Using Scopus as the central database for bibliometric analysis not only ensures comprehensiveness and interdisciplinarity but also increases the accuracy in identifying research trends, academic networks, and knowledge gaps regarding the role of ESG and sustainable supply chain governance [1], [6], [20]. With a dataset comprising abstracts and citations from peer-reviewed scientific articles, scholarly books, and conference proceedings, Scopus guarantees the quality and authenticity of information. Its broad coverage across science, technology, social sciences, and environmental studies enables the research to provide a holistic view of global trends, particularly concerning the role of ESG in global value chains and the participation of emerging economies [17], [21], [22].

2.2. Analytical Method

In this study, bibliometric analysis was employed as a quantitative tool to systematize and explore scientific publications related to ESG and global value chains. Data were collected from the Scopus database through queries using the keywords “ESG” and “Global Value Chains”. The analysis focused on factors such as authors, countries, journals, research fields, keywords, and citation networks to clarify the development process, knowledge structure, and emerging trends within the field.

Additionally, the study conducted comparisons across countries and disciplines to identify intersections, knowledge gaps, and potential research directions, particularly regarding the role of ESG in the participation of emerging economies in global value chains. To visualize academic relationships, VOSviewer software was used to construct scientific maps of research collaboration networks, co-occurrence of keywords, and major thematic clusters [23], [24].

During the analysis, identifying characteristics of scientific publications—including document type, language of publication, year of publication, authors, journals, citation counts, countries and institutions, academic keywords, and shared references—were all considered. The application of VOSviewer enabled the visualization of research collaboration networks and keyword co-occurrences, thereby identifying core research groups, scholarly linkages, and prominent trends shaping the field [25].

Figure 1 presents the study’s search process. In this research, all documents were analyzed using bibliometric methods. Specifically, the authors used: (i) Microsoft Excel along with the Scopus analysis results to calculate frequencies, percentages of publications, and construct relevant charts and graphs; and (ii) VOSviewer (version 1.6.20) to establish and visualize bibliometric networks. Furthermore, retracted or corrected documents were excluded to avoid duplication and bias in the statistical analysis:

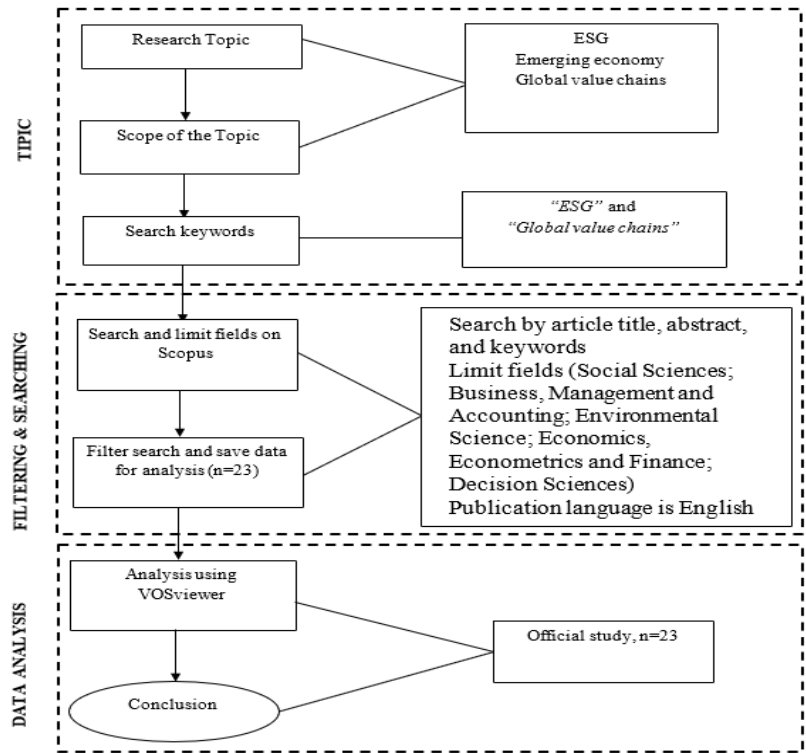


Figure 1. Search and selection process

Source: Author (2026)

3. RESEARCH RESULTS

3.1. Statistics by Year and Type of Published Documents

Within the scope of this study, focusing on the topics of “ESG standards” and “Global value chains” data were collected from the Scopus database – one of the most comprehensive and reliable academic sources in the fields of social sciences, management, and economics. Using the keywords “ESG” and “Global value chains,” the study identified and retrieved a total of 25 scientific articles published over the past five years. However, when limiting the publications by subject area within this period, 23 publications were included.

This dataset was analyzed and compared across research fields and countries to identify prominent trends, uncover knowledge gaps, and propose potential directions for future research. The results highlight the notable role of emerging economies, where issues such as cost management and technological innovation pose significant challenges in applying ESG standards within global value chain participation [12], [17], [21], [22].

As this topic is relatively new, gaining attention since around 2021, the number of publications has shown a clear increasing trend, with 2025 recording the highest number of articles (12 out of 23 publications). An overview of the analysis results is presented in Figure 2.

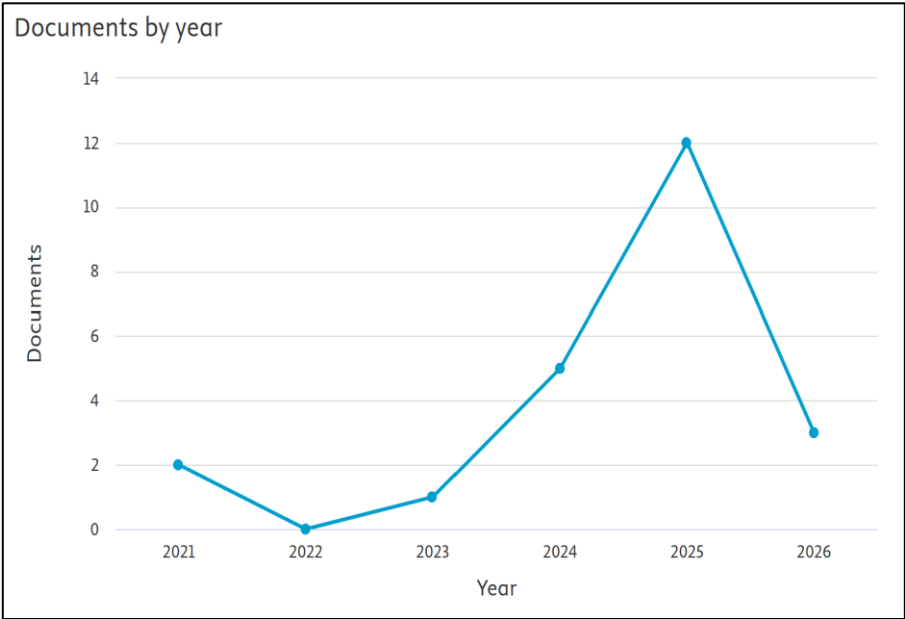


Figure 2. Statistics of research publications from 2021 to 2026

Source: Author (2026)

A total of 23 documents were collected from the Scopus database based on classification criteria by document type and publication source. The types of documents include research articles, review articles, books, book chapters, conference papers, letters, notes, short surveys, and some documents with an unspecified type.

Figure 3 presents the distribution of documents by type. Research articles accounted for the largest proportion, representing 65.2% (15 documents), followed by book chapters with 4 publications, equivalent to 17.4%. Review articles accounted for a smaller proportion, while the remaining document types each contributed approximately 8.7% of the total publications.

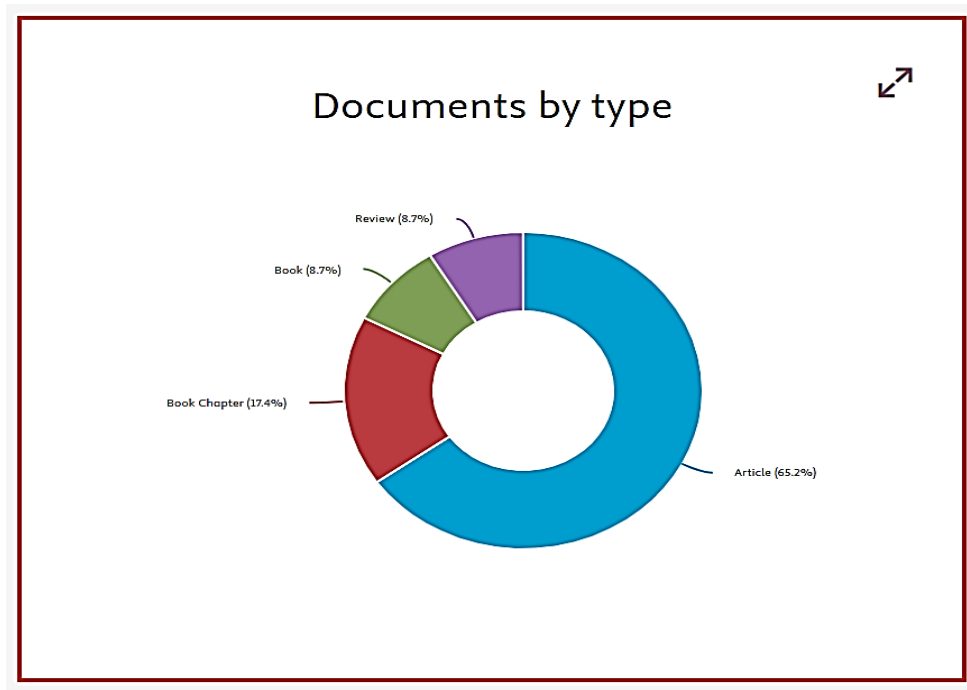


Figure 3. Statistics of research publications by document type

Source: Author (2026)

3.2. Research Publications by Geography

The keyword selection process was designed to optimize the retrieval of relevant documents while excluding articles that were not aligned with the research topic, thereby ensuring the accuracy and relevance of the dataset for bibliometric analysis. The results of the bibliometric linkage analysis are presented in detail in *Figure 4*.

Data analysis indicates a clear dominance of developed countries in the field of ESG and global value chain research, with the United Kingdom and Canada accounting for the highest proportions, each at 10%. This dominance reflects both research capacity and high policy interest from Global North economies, where ESG standards have been deeply integrated into business strategies and corporate governance frameworks.

Emerging economies such as Vietnam, India, and China contributed at a moderate level, approximately 7% each, indicating growing awareness and research on ESG, but still limited by academic resources, empirical data, and access to international publications. The remaining studies originated from various other countries, each representing a small share (3%), demonstrating that this field is still in its early stages of global development and has not yet formed strong geographic convergence.

Research on ESG within global value chains in emerging economies remains disproportionate to their actual level of integration into GVCs. This highlights the need for more quantitative studies and in-depth case studies to assess the specific impacts of ESG in different national and industry contexts. At the same time, current trends also reflect the asymmetry between the Global North and Global South in knowledge production, suggesting the promotion of international collaboration and knowledge transfer to enhance both academic and practical integration in the field of ESG and global value chains.

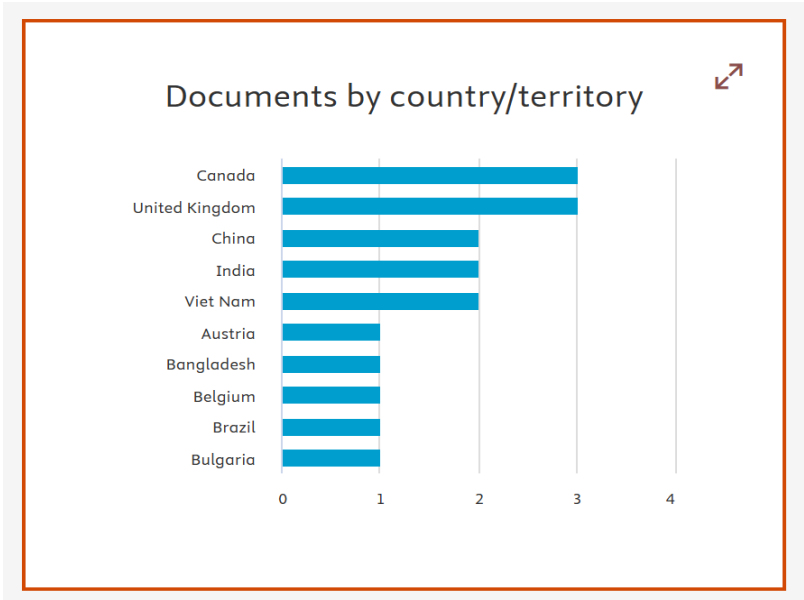


Figure 4. Statistics of research publications by country

Source: Author (2026)

3.3. Keyword Co-occurrence

After a rigorous screening process based on publication titles and the removal of articles that were not relevant to the scope of the study, a total of 23 articles were selected as the core dataset for subsequent analyses. This dataset was then processed and analyzed using VOSviewer, an effective tool for visualizing and analyzing relationships among research elements in the scientific field [26]. Keywords that appeared at least three times across the entire dataset were retained for the co-occurrence analysis, with a link strength threshold of 5.

Figure 5 illustrates the keyword co-occurrence network in the 23 research articles. The keywords are divided into two main groups: the first group (red) focuses on topics such as “global value chains,” “sustainable development,” and “environmental technology,” reflecting technical and economic aspects. The second group (green) ncludes keywords such as “sustainability” and “ESG,” representing governance and policy-related factors associated with sustainable development. The links between keywords indicate the strength of association based on co-occurrence frequency, illustrating the interaction among research themes in this field.

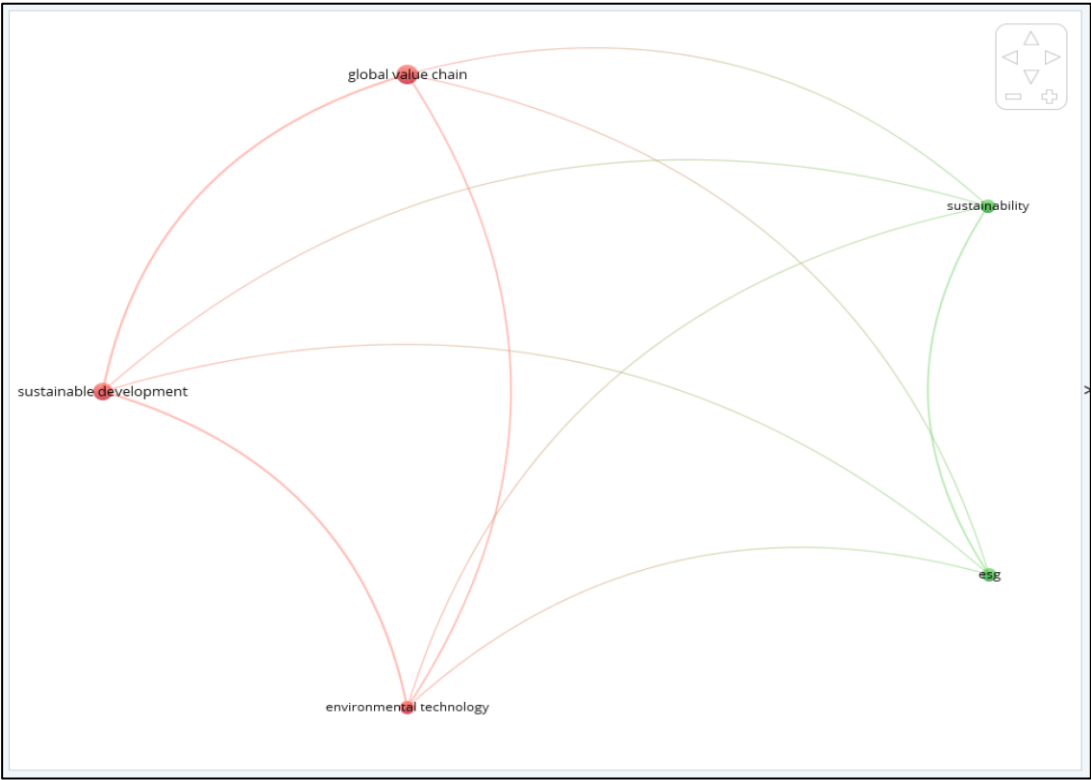


Figure 5. Visualization of the Author Keyword Network Map

(Source: Author's analysis using VOSviewer, 2026)

4. CONCLUSION

This study provides a systematic overview of the role of ESG standards in the participation of emerging economies in global value chains, affirming that ESG is gradually becoming an “implicit entry requirement” that shapes firms’ ability to integrate into and upgrade their position within GVCs. Compliance with ESG standards not only enhances reputation, market access, and international capital opportunities but also promotes the transition toward sustainable development, aligning with the global trend of economic restructuring.

However, findings from the bibliometric analysis also reveal the dual nature of ESG for emerging economies. Beyond serving as a driver for value chain upgrading, ESG simultaneously creates significant barriers related to compliance costs, institutional limitations, and technological capacity. These challenges may exacerbate development gaps between countries if appropriate support mechanisms are not in place.

Furthermore, the study highlights that the existing literature remains fragmented and lacks in-depth empirical evidence, particularly at firm and industry levels. This underscores the urgent need for quantitative studies and case studies to clarify the mechanisms through which each ESG pillar (environmental, social, and governance) affects the extent and quality of GVC participation.

Based on these insights, the study proposes several directions for future research, including: (i) expanding the scope of data and methodological approaches to enhance generalizability; (ii) strengthening multi-level empirical analyses (national, industry, and firm levels); and (iii) examining the differentiated role of each ESG component across

varying institutional and sectoral contexts, in conjunction with theoretical frameworks such as Global Value Chain Theory, Institutional Theory, and Stakeholder Theory. From a practical standpoint, emerging economies need to proactively develop ESG adaptation strategies by improving institutional frameworks, investing in technological innovation, and enhancing corporate governance capacities. This approach not only mitigates barriers but also leverages ESG as a catalyst to boost competitiveness and foster sustainable integration into global value chains.

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