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# Green Economy in Banking Sector: A Systematic Review of Policies, Research Trends, and Sustainable Practices

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**Abstrak**

Kepentingan ekonomi jangka pendek seringkali mengabaikan isu lingkungan, sehingga mengakibatkan dampak buruk yang berkelanjutan, termasuk perubahan iklim. Sebagai tanggapan, konsep ekonomi hijau, yang menyeimbangkan berbagai kepentingan yang saling bertentangan ini, telah menarik perhatian penelitian yang semakin signifikan. Namun, konsep ekonomi hijau masih bias dan samar. Artikel ini bertujuan untuk menjelaskan ambiguitas konseptual ini dan mengklarifikasi elemen-elemen penting ekonomi hijau, terutama di sektor perbankan, berdasarkan tinjauan pustaka sistematis terhadap 11.301 artikel akademis yang diterbitkan antara tahun 2016 dan 2022 dan tersimpan dalam basis data Scopus. Konsep-konsep yang diambil dari studi-studi ini dikodekan berdasarkan analisis jaringan deskriptif untuk mengatasi masalah bias dan ketidakjelasan dalam literatur yang begitu luas. Studi ini menemukan tiga elemen utama dalam definisi yang ditawarkan: ekonomi, lingkungan, dan sosial. Sifat multifaset dari konsep ini mencerminkan potensi trade-off atau sinergi di antara klaster-klaster ini. Studi ini mendefinisikan konsep ekonomi hijau sebagai filosofi, gagasan, dan aktivitas ekonomi yang didasarkan pada prinsip-prinsip pelestarian lingkungan, peningkatan kesejahteraan publik, dan pemeliharaan keadilan sosial dalam dan antar generasi. Definisi ini menawarkan panduan untuk kebijakan masa depan, penelitian, dan kegiatan lainnya untuk memajukan ekonomi hijau di sektor perbankan.

**Kata kunci**: ekonomi hijau; ekonomi; lingkungan; sosial; systematic literature review

***Abstract [Times New Roman 11, bold, italic]***

Short-term economic interest mostly neglects environmental concerns, resulting in continuous harmful impacts, including climate change. In response, the concept of green economy, which balances these conflicting interests, has attracted increasingly significant research attention. However, the green economy concept remains biased and vague. This article aims to shed light on this conceptual ambiguity and clarify the essential elements of the green economy especially in the banking sector based on a systematic literature review of 11,301 academic articles published between 2016 and 2022 and filed in the Scopus databases. The concepts drawn from these studies were coded based on descriptive network analysis to overcome the problems of bias and vagueness in such an extensive literature. The study finds three main elements in the definitions offered: economic, environmental, and social. The multifaceted nature of the concept reflects potential trade-offs or synergies among these clusters. The study defines the green economy concept as an economic philosophy, idea, and activity based on the principles of preserving the environment, enhancing public welfare, and maintaining social equity within and among generations. This definition offers guidance for future policy, research, and other activities to advance the green economy in the banking sector.

***Keywords:*** *green economy; economic; environmenta;, social: systematic literature review*

## 1. Introduction

The concept of a green economy gained momentum with the onset of the global economic and financial crisis at the end of 2007. The green economy concept is not new since its principles and defining characteristics have been debated in academia for more than half a century (Pearce et al., 1989; Jacobs, 1991). However, policymakers showed little interest in this early research. In the middle of the continually evolving classification of the relationship between the green economy and sustainable development, the most crucial question is how the concept, stance, and connection of the green economy relate to social and environmental justice. Equity must be at the center of any debate on transitional development models (Reiff, 2013). The transition must take into account how policies aiming at developing a greener economy might take into account the impact and possibilities for overall equity.

The green economy policy transition needs measurement and an indicator-based framework that clarifies green economy implementation. The Green Growth Knowledge Platform (GGKP) 2013 emphasizes the important role of monitoring economic possibilities and transitions related to the green economy, as well as evaluating the instruments and policy restrictions associated with the green economy agenda. Furthermore, the United Nations (2014) emphasizes the significance of agreed-upon norms and boundaries for the green economy. Therefore, the scope aspect must be evaluated in light of the concept of the green economy.

In this study, we analyze and define green economy principles to establish green economy constraints. The article then considers the consequences of adopting a green economy. This study, which employs a systematic literature review (SLR) methodology, aims to provide new insights and understanding into the concept of the "green economy." To achieve this, the purpose of this research is to determine how the concept of a green economy may be implemented globally.

The use of an SLR for this study aims to look at empirical evidence related to several aspects contained in the green economy concept. This makes it possible to compare the results of the findings of other researchers to identify similarities, connections, differences, and gaps that allow for further research. A thorough examination of the green economy and its evolution process is important and required. This study examines many modalities and evolutionary trajectories of the green economy. Thus, it provides a solid theoretical foundation for a more relevant and comprehensive conceptual framework of green economy that is required in implementing green economy policy, research, and activity to build a new ecological civilization.

The remainder of this essay is divided into the following sections. A theoretical foundation for green economic ideas is provided in the second section. The third section explains the approach utilized to investigate the subject (literature-based analysis). The fourth section provides the results and discussion. The last section ends the article by giving suggestions for future agendas.

## 2. Literature Review

In the late 1980s, Pearce et al. (1989) established the concept of a green economy for the first time in their renowned report "Blueprint for a Green Economy," in which they recommend that the government of the United Kingdom add the term "sustainable development" and investigate its implications for measuring economic success and evaluating projects and programs. The concept of a green economy is not thoroughly explained in the "Blueprint for a Green Economy."

Jacobs (1991) made the first attempt to describe a green economy in his book *The Green Economy*, where he established the identification of the term through a rigorous theoretical explanation of the ideology and academic discipline of the green economy. Pearce published *Blueprint 2: Greening the World Economy* (1991) and *Blueprint 3: Measuring Sustainable Development* (1994), respectively. In these two publications, Pearce developed the first blueprint for a green economy, focusing on climate change, ozone depletion, tropical deforestation, and the degradation of natural resources to support environmental laws.

However, the concept of a green economy practically disappeared during the 1990s and early 2000s, and it was barely addressed in scientific literature. In 2008, more than two decades after the blueprint was published, the United Nations Environment Programme (UNEP) resurrected the term green economy in the context of policy responses to the global financial crises (Bina & la Camera, 2011; Death, 2015). According to UNEP (2008), the principles of a green economy include: recognizing the value of natural resources and investing in them, increasing the efficiency of resource and energy use, encouraging low-emission and sustainable lifestyles, diverting the use of fossil fuels to renewable and low-emission energy, growing faster while conserving natural resources, reducing poverty, boosting employment, and promoting social equity.

One strategy for the future that promotes economic recovery and more sustainable growth is the "green economy" (Barbier, 2012; Bowen et al., 2009; Georgeson et al., 2017). UNEP promoted the idea of green stimulus packages and identified sectors where significant public investment may embrace green economy principles during the financial crisis and concerns of a worldwide recession (AtKisson, 2012).. As a result, some governments have launched extensive "green stimulus" programs as part of their economic recovery attempts.

In the years following the 2008 financial crisis, the concept of the green economy gained significant momentum. When the World Bank and the Organization for Economic Co-operation and Development (OECD) expanded it vigorously on a global scale, the application of the green economy concept was again the subject of extensive discussion. 2009's Green Growth Declaration and 2011's Green Growth Strategy Package are significant indications of the OECD's commitment to developing and implementing the green economy concept. These two documents became widely regarded reports that served as the foundation for the development of the green economy idea in numerous nations.

Continuous development has an impact on human life and natural resources. This has failed in social and environmental areas, despite evidence that it stimulates the economy. An example is the annual growth in greenhouse gas emissions and the decrease in forest acreage. In addition to physical and social progress, economic development also takes into account the environmental element's sustainability. The concept of a green economy is considered one of the solutions to the problems we currently face. In order to encourage the implementation of the green economy concept, UNEP (2008) defines a green economy as one of the tactics to advance social justice and human well-being while drastically reducing ecological risks and shortages.

The definition of a green economy is typically defined as having a broad reach (Bigg, 2011; Loiseau et al., 2016), being ambiguous (Jänicke, 2012), and sparking disputes (PEP, 2012; Jakob & Edenhofer, 2014; Faccer et al., 2014; Buseth, 2017; Speck & Zoboli, 2017). Some economists say that the inherent difficulties of the concept of a green economy contribute to the lack of consensus regarding the definition of a green economy (Georgeson et al., 2017; Merino-Saum et al., 2020). Some additional viewpoints assert that the conceptual uncertainty is a result of the existing political problems surrounding the green transition and highlights differences in international governance over the green economy (Brown et al., 2014).

Since 2012, the green economy has been presented as a model for mitigating climate change, a driver of economic growth, and a tool for reducing poverty. In general, the achievement of sustainable development is inextricably related to the green economy (UNEP, 2011a). However, this method was severely criticized by other scientists whose fields of research intersected with this one. First, according to some academics, sustainable development is too wide and difficult to operationalize; therefore, the deployment of a green economy would encounter the same difficulty (Borel-Saladin & Turok, 2013). Additionally, the green economy is an instrument for achieving sustainable development. The green economy should be viewed as an adjunct to sustainable development, not a replacement (OECD, 2011). Third, the green economy and sustainable development are identical. According to these individuals, the terms are interchangeable. The green economy, according to Halle (2011), is a rebranding of

sustainable development. Likewise, Abaza et al. (2011) demonstrate that a green economy contributes nothing novel to the concept of sustainable development.

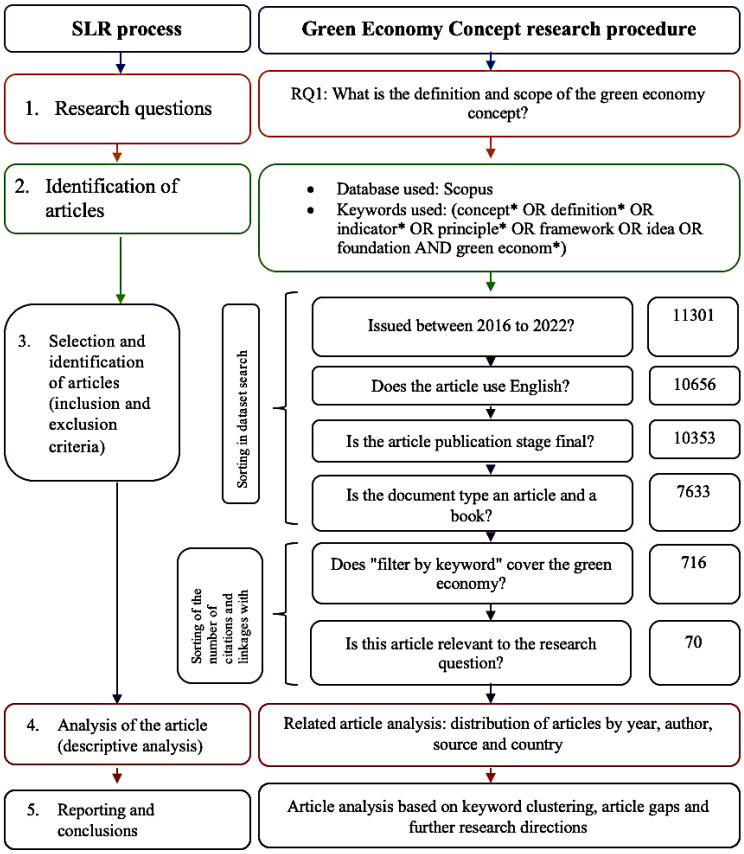
The following are included in the international organizations' consensus on the concept of a green economy: (1) a direct connection to the idea of sustainable development; and (2) the idea of a green economy as a growth strategy that combines social and environmental outcomes with economic gains (Speck & Zoboli, 2017). Three distinct ideas of the green economy are identified by Faccer et al. (2014): (1) an incrementalist perspective, which is based on a pro-growth paradigm, emphasizes technological advancements, prioritizes market-based tools, and disregards environmental boundaries; (2) a reformist perspective, which also views economic growth as unavoidable and places a high value on technology, but takes into account the conflicts between environmental protection and economic growth; and (3) a transformative perspective, which stresses a paradigm shift from environmental protection to economic growth.

## 3. Method, Data, and Analysis

In this study, we conduct an SLR to assess the impact of the green economy concept. An SLR can be described as the location, synthesis, assessment, and combination of results of existing studies on a particular topic (Fink, 2019). The process involves identifying, evaluating, and interpreting all available articles to provide answers to specific research questions (Kitchenham, 2007; Staples & Niazi, 2007).

The study's sample dataset was obtained through SLR because it is the method uniquely capable of identifying the data required to determine how the concept of the green economy is evolving in different nations. The procedure is depicted in Figure 1:

**Figure 1**. Research procedure




Source: Author

There are substantial data and capacity constraints that must be surmounted to measure all aspects of the green economy. However, there are reasons to be concerned about the availability of official data assessing the green economy. A lack of data can affect the measurement of progress toward diverse green economy objectives and might lead to reliance on less robust models of such an economy. In this study, we carry out a thorough literature review to identify datasets concerning the green economy.

The accurate sampling and identification of the data from the literature review was ensured by adopting an appropriate methodology (Webster & Watson, 2018). Scopus is one of the world's major databases, indexing scientific journals, books, and conference papers, containing data used by academics, governments, and corporations for their analysis. This study uses a mix of Boolean search and Bibliometric network analysis utilizing various combinations of search phrases related to the notion of the green economy to boost the effectiveness of the sample search. As described by Eck & Waltman (2014), a bibliometric network consists of the vertices and edges that demonstrate the correlation and

strength of the relationships between words. The database uses keywords for sorting sources by title, abstract, and keywords. SLR can randomly rank articles according to the research's keywords; hence, keywords must be determined beforehand to restrict the research's scope. In this study, the keywords used are (concept AND green AND economy). Existing studies use different terms to refer to the concept of the green economy, and the search terms here are broad to reflect this fact: (concept* OR definition* OR indicator* OR principle* OR framework OR idea OR foundation AND green AND econom*).

In the SLR process, articles are selected if the green economy concept is raised. In addition, additional complementary inclusion and exclusion criteria are applied to obtain the best results. Only articles published between 2016 and 2022 are included; the year 2016 is selected as the lower limit as several studies and policies concerning the green economy emerged in the wake of the 2016 Paris Agreement.

The results obtained from this search yielded 11,301 articles in which the concept of the green economy is discussed. The specified eligibility criteria are employed in the sorting process to ensure the correct studies are selected. The search was limited to articles and reviews indexed in the Scopus database and published in English. Subsequent sorting is based on the number of interconnections overall and between individual articles. The final sorting step involves reading each study identified in its entirety and sorting the sample according to the extent of their focus on green-economy concepts.

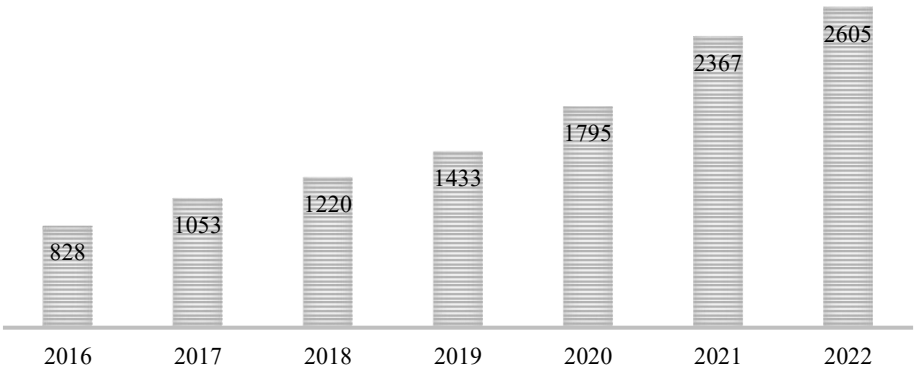
## 4. Result and Discussion

Several studies examine the concept to create a clear overview of the green economy and its implementation based on the context previously described. According to several scholars, the concept is typically defined broadly, making its implementation challenging.

### 4.1 Publications on the topic by year

The sample shows a fairly dramatic increase in publications on the topic of the green economy between 2016 and 2022 (Figure 2). The most significant increase occurred from 2020 to 2021, with an increase of 31%. This reflects the large number of studies discussing environmental issues as part of the green economy that were conducted during the COVID-19 pandemic. In addition, the availability of data in several countries encouraged further research on this subject.

**Figure 1.** Publications on topic by year

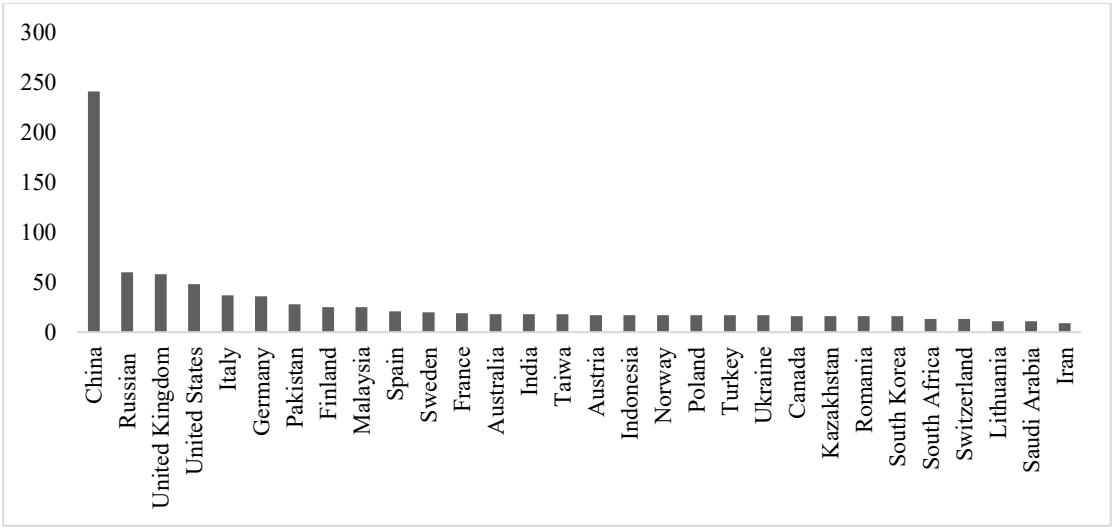



Source: Author

### 4.2 Sample trends by region

The descriptive statistics from the samples show that articles on the green economy concept were published in 87 countries (Figure 3). Of the 87 countries, China accounts for the most research in this field, with a total of 241 articles. There is a big difference between the articles published by China and those published by other countries.

**Figure 2** Publications on topic by region

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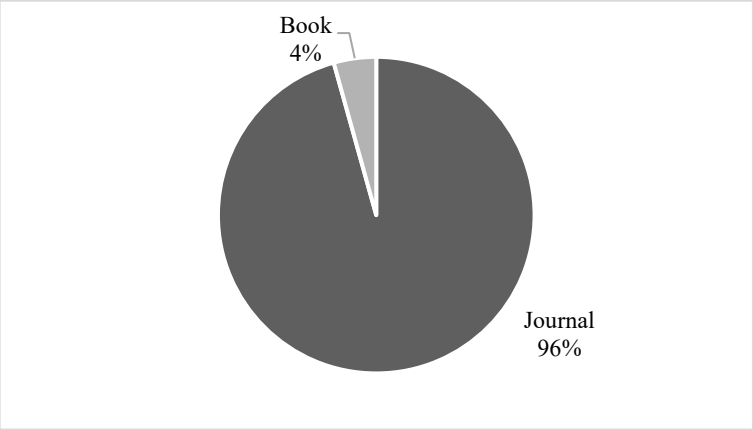
### 4.3 Article type

Only publications in journals or books are included in our sample (Figure 4). These publication types are considered to have a fairly high level of accuracy and judgment compared to other types. Journals and books are also the sources most frequently consulted by researchers and policymakers.

**Figure 3** Article type

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### 4.4 Subjects covered

According to our assessment, 21 subjects are addressed in the sample publications. Most of the publications are in journals in fields other than economics. This is due to the connection between economic, environmental, and social issues.

**Table 1.** Subjects covered in sampled publications

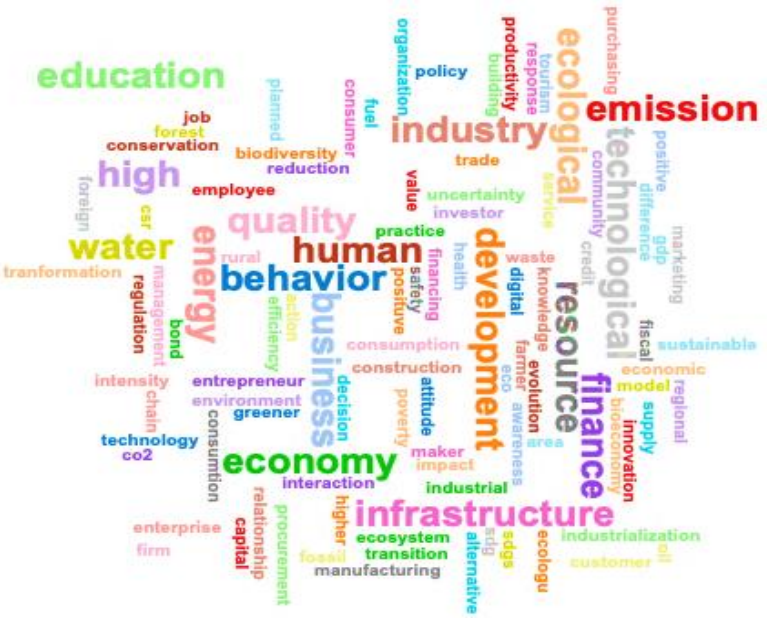
| Subject | Number of articles |
|---|---|
| Environmental Science | 494 |
| Social Sciences | 344 |
| Energy | 237 |
| Economics, Econometrics, and Finance | 140 |
| Business, Management, and Accounting | 118 |
| Engineering | 99 |
| Computer Science | 58 |
| Medicine | 45 |
| Agricultural and Biological Sciences | 40 |
| Earth and Planetary Sciences | 26 |

| | |
|---|---|
| Psychology | 17 |
| Arts and Humanities | 13 |
| Mathematics | 13 |
| Decision Sciences | 11 |
| Biochemistry, Genetics, and Molecular Biology | 5 |
| Physics and Astronomy | 4 |
| Chemical Engineering | 3 |
| Chemistry | 3 |
| Materials Science | 3 |
| Pharmacology, Toxicology, and Pharmaceutics | 3 |
| Multidisciplinary | 1 |

### 4.5 The green economy concept is too broad

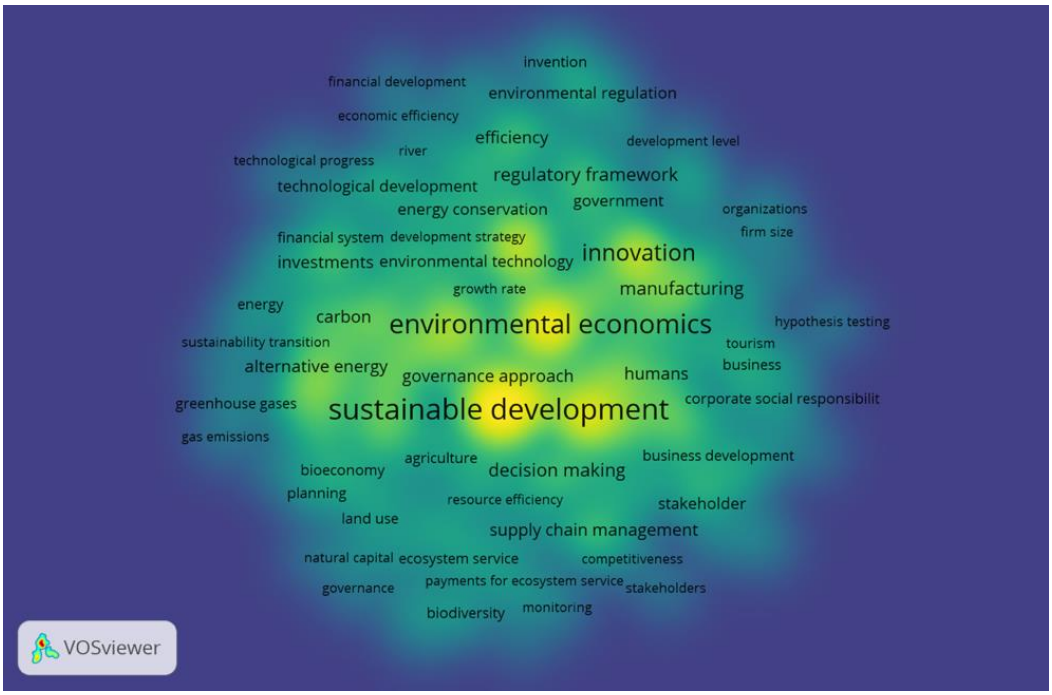
Guided by the abovementioned understandings and theories, the concept of the green economy continues to evolve, improve, and innovate, deepening the possibilities of its practical application. Transforming current modes of economic development requires understanding the green economy's evolutionary path and trends; there has, to date, been no specialized and comprehensive study conducted on this topic. In the first stage of the SLR, the findings are in line with Bigg (2011) and Loiseau et al. (2016), who argue that the concept of the green economy is too broad and ambiguous. This can be seen from the word cloud, which reflects research topics related to the green economy discussed in the sample.

**Figure 5**. Green economy world cloud




Source: Author

**Figure 6**. Keywords by frequency




Source: Author

This ambiguity results in different interpretations and limits the extent to which the concept can be applied and implemented; as a logical corollary, the boundaries between the concept of a green economy and other related terms are fuzzy and contested. Indeed, although international organizations

insist that a green economy is not a mere substitute for sustainable development (OECD, 2011; UNEP, 2011a), observers have wondered whether there is any difference between them.

The green economy is alternatively presented as "the child of" (Jacobs, 2013), "the intellectual cousin of" (Fiorino, 2014), "a key vehicle for" (ten Brink, 2012), "a way to operationalize" GGKP, 2016), "a pathway to" (UNEP, 2011), "a support of" (UNDESA, 2012), or still "an enabler of" sustainable development (Georgeson et al., 2017; UNCTAD, 2011). As these examples illustrate, the green economy and sustainable development are most often articulated using teleological reasoning, with the former a means to achieve the latter. The green economy is also usually presented as "narrower in scope" (OECD, 2011) and "more focused" (Brown et al., 2014; Ferguson, 2015), "practical" (Choi, 2015), or "operational" GGKP, 2016) as a concept than sustainable development.

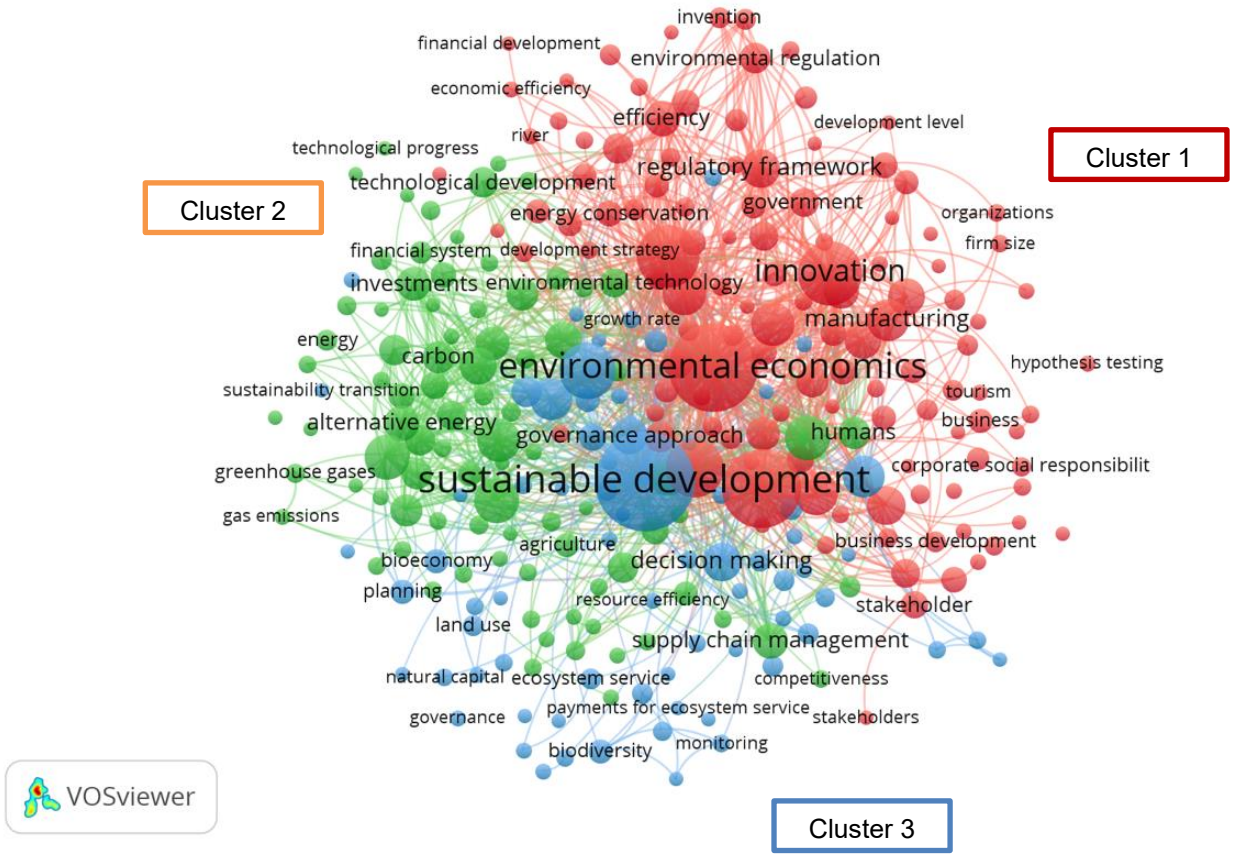
### 4.6 The green economy considers environmental, economic, and social factors

The factors that play a major role in the concept of the green economy can be captured using the umbrella concepts put forward by Hirsch & Levin (1999) that cluster terms with something in common. Umbrella concepts are based on the application of scientometrics, which can provide new and deeper information about the topics to be discussed. The use of scientometrics allows a clear understanding of the evolution of the literature and helps to identify the relevant areas of study (Hanafizadeh & Kim, 2020).

According to Chen et al. (2002), co-word and co-citation analysis are two of the most basic techniques in the application of scientometrics. Co-citation based on scientometrics is an objective and quantitative approach to identifying relatedness in the literature (Liu et al., 2018). When two or more keywords on a particular topic appear with the same value, then they have an equally important relationship; the greater the degree of keyword co-occurrence, the closer their relationship (Chen et al., 2016). Articles are sorted based on the nature of the group, as seen from the linkage of references, type of journal, author, and country. This study uses Publish or Perish, RStudio, and VOS Viewer software to perform co-word analysis and co-citation network visualization.

The literature in which connections related to the concept of the green economy appear are identified by making connections between various elements, as depicted in Figure 8. The relative node size in each layout indicates the frequency of citations in the literature on the green economy. The larger the node, the higher the citation count and reference relevance. The different colors signify different groups.

**Figure 7.** Co-occurrence network: green economy




Source: Author

Three large clusters were identified from the results of the SLR data mapping. These indicate the three major variables most often discussed in the Scopus database in relation to the concept of the green economy. In the first cluster, some studies link the green economy with the environment and natural resources, including fuel (Winter, 2009), energy (van der Zwaan et al., 2002; Lin & Jiang, 2011; Warr & Ayres, 2006; Fuss et al., 2012), and water (Qi & Chang, 2011). In the second cluster, the green economy is also closely related to traditional economic factors(Dafermos et al., 2018; Batten et al., 2020), such as credit policy (Nanayakkara & Colombage, 2019), bond policy (Nanayakkara & Colombage, 2019), and investment policy (Li et al., 2021).

In the third cluster, some studies employ social variables, including population (Nordhaus, 2001), productivity (Burke et al., 2015; Panagos et al., 2018), income distribution (Ibarrarán et al., 2009), and poverty (Ibarrarán et al., 2009; Panagos et al., 2018). In a green economy, income and workforce growth are driven by public and private sector investment in reducing carbon emissions, increasing energy efficiency, and reducing environmental degradation. These studies argue that the social aspect of the green economy can be achieved if every individual in society supports one another.

In this case, every individual in society plays a role as a sustainable policymaker who can act as an agent of change in promoting a green economy.

A green economy would generate income and employment opportunities while simultaneously reducing carbon emissions and pollution, enhancing energy, water, and mineral efficiency, and preventing the loss of biodiversity and ecosystem services (Ocampo, 2011). Its integrated, economy-wide framework contrasts with many previous sustainable development initiatives that have been more sector- or site-focused (Ashley et al., 2006; Russell et al., 2006; Fisher et al., 2008).

The underlying premise of a green economy is that the current economic system does not adequately value social and environmental costs and benefits, leading to a gross misallocation of capital (Pearce and Barbier, 2000). In other words, because markets and prices do not accurately reflect the full social and environmental costs of economic activity, resources are not allocated in the best interests of society (Frank and Bernanke, 2004). A green economy aims to address such problems by reorienting the system's incentive structures so that public and private investments account for the full set of costs and benefits they produce. This approach is expected to allow the reallocation of human and financial capital in a manner that improves human well-being, increases social equity, reduces environmental degradation, and hence promotes sustainable development (TEEB, 2009; UNDP, 2016; ten Brink et al., 2012).

There are three primary strategies put forward in the literature: 1) addressing market failures through price adjustments and regulatory enforcement so that resources are used more efficiently and in line with societal values; 2) increasing public spending to support environmentally friendly economic growth, innovation, and access to information; and 3) international collaboration to put in place global agreements and regulations in support of these efforts (Moyo, 2012; TEEB, 2009; Stiglitz, 2012; UNEP, 2011). These interventions are expected to generate private sector buy-in and political support for a green economy by ensuring it is aligned with the priorities of a broad range of people and organizations and balances economic growth and conservation (Jacobs, 2012; Morrow, 2012).

The difference between the concept of the green economy and other economic ideas is natural capital, and ecological services are given limited economic value in traditional economic thinking. A green economy contributes to the responsible use of natural capital. The idea of a green economy emphasizes the pricing of natural resources and the creation of markets that provide solutions to environmental problems and can lead to sustainable environmental development. The concept promotes public and private investment in natural resources to reduce carbon emissions and increase natural resource efficiency. The proper valuation and pricing of natural resources are useful for ensuring

sustainable value by reconciling degradation from the current production of capital. Pricing policy is also a part of the transition toward a green economy. Some pricing policies adopted by countries are taxes related to the environment and tariffs on pollution, for example, on carbon, nitrogen, and sulfur oxide emissions or waste disposal.

Based on the results of this study, the concept of the green economy is an economic philosophy, idea, and activity based on the preservation of the environment, enhancement of public welfare, and maintenance of social equity within and across generations. This implies that the application of a green economy is the more integrated and comprehensive incorporation of environmental and social factors into the economic process in a sustainable manner.

### 4.7 Conceptual closeness

This study offers several important lessons. First, the concept of a green economy is, by definition, multifaceted. Its focus on the relationship between economics and the environment (i.e., how well do these dimensions complement one another?) is one of its unique characteristics. How much, and to what extent? However, the green economy is more an aspect of the concept of sustainability. Two-thirds of the definitions of the green economy considered in this study take social issues into account, either generally or specifically; some specific social issues, like “equity,” are taken into account as much as other more typically referenced aspects of the green economy, like resource efficiency.

The foundational phrases for the green economy idea are not conceptually equidistant, and some combinations are thus more common than others. When a definition refers to a specific conceptual element (such as economic growth), it almost certainly also refers to other elements (e.g., technology, innovation). These semantic structures must be kept in mind because the green economy concept is surrounded by ambiguities and dissonances. In this analysis, at least three aspects of the concept were identified. These are, in order of frequency, economic, environmental, and social.

Finally, network analysis was conducted to outline the role played by certain influential definitions (such as UNEP, 2010) and cleaving conceptual elements (such as economic growth, environmental finitude, and efficiency). The appearance of these elements involves “conceptual enclosures” and reflects antagonistic understandings of the green economy. The definitions centered on resource efficiency rather than the four-square model of UNEP seemed to be the most disparate. The former may provide the theoretical foundations for structural and systemic transformation due to their possible compatibility with new paradigms and alternative worldviews. However, for this to be the case, there

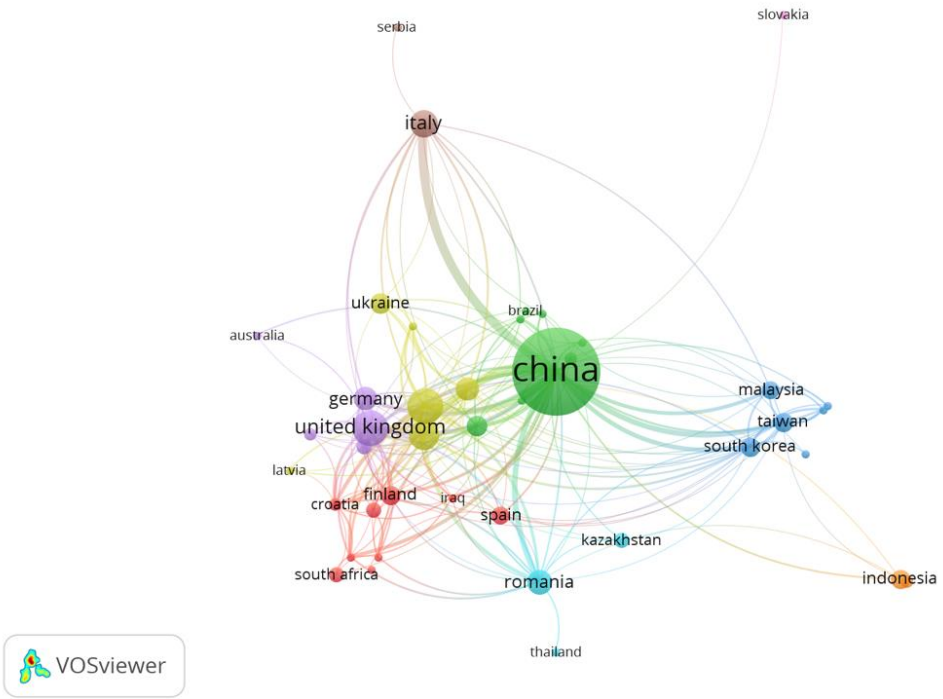
should not be a sizable disparity between the definition, its theoretical development, its technological translation, and the choices made in actual practice.

Such criteria do not necessarily include critical viewpoints on the current state of the economy and politics, even when these are compatible. For instance, the monitoring system may be framed in terms of the UNEP model's four main components to bring concepts and policies closer together. However, no international measurement endeavor has used this model for structural purposes. The operationalization of these concepts, whether there will be eventual dominance of a particular understanding and actual effects on day-to-day living will all be revealed in the upcoming years.

### 4.8 Countries that frequently perform research on green economy

The concept of a green economy has been the subject of numerous discussions among academics and practitioners alike. China is the nation that has published the most research on the green economy concept, with 241 articles. In addition, as shown in Figure 8, studies undertaken in China have become a benchmark for research in other nations.

**Figure 8**. Frequency of research on the green economy by country




Source: Author

Previous research in China has produced an index to measure green-economy efficiency and determine whether the Chinese government's policies are consistent with the idea of a green economy (Chen et al., 2018; Wang et al., 2019; He et al., 2019; Pan et al., 2019; Shuai & Fan, 2020). This index

can also be used by the Chinese government to regulate the application of the green economy concept in various Chinese regions. From 2007 to 2018, there was greater adoption of the green economy model in Beijing, Shanghai, Tianjin, and Guangdong; these regions have an index value higher than 0.9; others, including Hebei, Liaoning, Guizhou, and Gansu, have an index value below 0.5 (Shuai & Fan, 2020).

China is a developing country with a high growth rate, and its economy is thus supported by the industrial sector. However, its massive industrial boom has resulted in resource depletion and environmental degradation. China is attempting to repair the damage to resources and the environment by focusing on the implementation of a green economy, including the implementation of a green economy index.

China uses the green economy-efficiency assessment index and can examine the elements that contribute to the heterogeneous application of the green economy idea in some of its regions. The index also allows the government to formulate and implement policies that promote a green economy across its various regions. The input and output indicators used in calculating this index include economic, social, and environmental factors. In addition, the Chinese government has introduced an index threshold that is mandatory for the region and the industrial sector, which is the largest contributor to climate damage.

The green economy index was created from a regional perspective and is intended to capture the intensity of the adoption of the green-economy model and the limitations of each region. The green economy index created by China is then used by international authorities and other countries to evaluate green economic development.

For example, UNEP has created a green economy evaluation index (UNEP, 2012), and the Global Green Growth Institute (GGGI) has created an indicator-based evaluation system (this takes account of national development, social status, resource consumption, and environmental status; Tamanini et al., 2014), and the World Commission for Environment and Development (WCED) has created an urban green development evaluation index. These evaluation methods rely primarily on the integration of the green economy development capacities of several nations; it is not possible to evaluate the economic development status of each region individually (Cassen, 1987). Researchers have assessed the progress of the green economy using these indexes and such concepts as “green GDP” and “green economy efficiency.” In certain locations, these systems have allowed a more accurate measurement of the growth of green economies.

## 5. Conclusion and Suggestion

This study represents a systematic and empirical indicator-based articulation of qualitative and quantitative green economy concepts extracted from 11,301 articles. The SLR using the Scopus database on the concept of a green economy provides several important lessons on the multidimensional nature of the green economy. In this study, social, economic, and environmental factors exhibited a high degree of connectivity. Studies in this vein explain the green economy as a systematic effort to create awareness and incentive mechanisms for economic activity, emphasizing the importance of environmental sustainability and social inclusion in policy formulation. The green economy concept provides direction in the transition from the old brown economic development paradigm to a greener economic system. This allows the resulting economic benefits to be maintained while ensuring environmental sustainability and social inclusion. Finally, the study defined the green economy concept as an economic philosophy, idea, and activity based on the principle that it is important to preserve the environment, enhance public welfare and maintain social equity within and across generations. This provides a valuable step forward in the quest for a better understanding of the complexities of sustainable resource management.

The application of the green economy concept requires that the government adopt appropriate policies. From a regional perspective, it is necessary to strengthen the enforcement of regulations for the implementation of a green economy by looking at the specific conditions of each region, as has been done in China. There is a need to pay attention to regional differences in the impact of environmental regulations on green economy implementation; the aim is to reflect regional differences and introduce more appropriate incentives and limits for different regions while adhering to unified environmental standards. The green economy index created by China is an important reference for other countries to control the development of a green economy, build a more scientific evaluation system, and measure this economy's efficiency more accurately.

Economic, social, and environmental aspects influence the complexity of green economy development. When creating indicators, it is vital to verify that each evaluation index accurately reflects the level of regional development, takes into account the rationale of each evaluation index, and has appropriate application over an extended period. Given the conceptual ambiguity and gap between concept and practice more generally, it is crucial to specify the understanding of the concept for an index that tracks its implementation across regions.

This study has some limitations: (1) only the Scopus database is used, and more sophisticated results could be obtained using additional databases; (2) the SLR on the concept of a green economy employs an umbrella concept that is general and includes the perspectives of academics, practitioners, organizations, and the government of a country. Further research comparing the outcomes of research

undertaken by academics, practitioners, organizations, and governments in a specific country would produce even better results.

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