# A bibliometric analysis on the notion of sustainable business models and its relationship with the creation of territorial value for the environment

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**Abstract**
In a context where sustainability has become a central issue for companies and territories, this study aims to identify the importance of new sustainable business models (NBMS) and their interactions with territorial creation value. This study is one of the first to use bibliometric methods to describe and analyze the evolution of the literature published on the subject. The bibliometric analysis method was based on a 25-year study on a data set (1999-2024), collected by analyzing 115 articles via Zotero in a reliable way and randomly by analyzing 1,648 via Web of Science. Using the VOS viewer software, the visualization of bibliometric data offers a glance at the articles, authors, journals, countries and fields that have the most effect on territorial value creation and the emergence of new sustainable business models. The analysis summarizes the most influential papers, authors, journals, and research topics. The results show the occurrence of three study themes: sustainable business models, territorial creating value, and innovation. In summary, this publication highlights the key findings of the study analysis and makes recommendations for future research areas in the subject.

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## 1. Introduction

The climate emergency and the need to transition to a more sustainable economy pose significant challenges to businesses of all types. Traditional business models, often linear and extractive, show their limitations in the face of growing environmental and social challenges (Bocken & Short, 2021). This situation calls for a reinvention of business practices, in which New Sustainable Business Models (NSBMs) play a crucial role (Karuppiah et al., 2023). These are emerging as innovative alternatives that aim to reconcile economic performance with a positive impact on local communities.

In the early 2000s, experiments were conducted to develop new sustainable business models (such as the circular economy, industrial and territorial ecology, economy of functionality) centered around territorial practices dedicated to and towards new forms of sustainability that involve businesses or territories (Bocken et al., 2019). These experiments laid the theoretical groundwork for the creation of territorial value (Maillefert and Robert 2018). Furthermore, research like (Merlin-Brogniart 2017) emphasizes how crucial collaborations, governance, and innovation are to the development of these models.

The present study aims to identify the importance of new Sustainable Business Models (NSBM) and their interactions with territorial value creation and to document them using software. This study is one of the first to use bibliometric methods to describe and analyze the evolution of published literature on the subject. To achieve this, the bibliometric analysis method was used to analyze 115 articles published between 1999 and 2024, using VOSViewer software. This analysis provides an overview of research themes, to present a comprehensive knowledge map of the structure of the new sustainable business models field of study.

In this document, we aim to highlight common terminology and research themes and to provide possible collaborations and future directions for the topic. Thanks to this document, Researchers and professionals will be able to understand the trends in research on NBMS and territorial value creation and discover the possibilities for implementation according to each application specificity. We will present results on the interactions between NSBM and territorial value creation. In this way, the links found will be analyzed and deciphered to weave a comprehensive research field covering all the themes and topics reached. This

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manuscript will conclude with a general discussion highlighting possible interactions between NSBM and territorial value creation. The main contributions of this study will provide some perspectives for the future.

Business Model, value creation and ecological resources are important factors for achieving sustainable development goals (Madsen, 2020). This importance has given rise to different sustainable Business Models, in which researchers, academics and professional actors consider the activities carried out, within the framework of the emergence of NSBM, from a different angle (Lüdeke-Freund & Dembek, 2017). The notion of territorial value creation emphasizes the emergence of multiple sustainable Business Models linked to the development of environmental as well as social measures (Lahti, et al., 2018). In this context, our study aimed to review the scientifically documented keyword analysis method to measure territorial value creation and its links with NBMS, but also with the service or product system generated by companies, in all types of companies. The study followed a scientometric meta-analytic methodology to achieve its objectives (Hayat, 2022). The study strictly referred to NBMS and value creation to analyze the data contained in a database exported from Zotero software in RIS format. Then, the selection was processed in VOSViewer in order to establish a field of knowledge and future topics. This study will give rise to a comparison based on the objectives related to the emergence of NSBM and their contribution to value creation in a specific territory. Finally, we will evaluate a form of measurement documented in scientific research on our subject at a narrow level and discuss its advantages and disadvantages.

These new business models align with the idea of sustainable Business Models, which aim to establish a connection between sustainability and value creation (Bocken et al. 2014; Dentchev et al. 2018). However, the nature of the value generated, their anchoring in territorial projects, and their co-construction process with territorial stakeholders set these new business models apart from sustainable business models (Maillefert & Robert 2018). Through the formation and realization of territorial value, it aims to redefine the connections between sustainability and value creation (Maillefert & Robert 2018).

Even with the wealth of research on business models, its still unclear exactly what business model innovation is (Foss & Saebi, 2018). In the literature, business model innovation is typically framed in terms of altering the value offer for customers (Ramdani et al, 2019). But it goes beyond simply altering the offerings of goods and services to the consumer. Business model innovation must transcend procedures and products since it focuses on altering "how you do business" rather than "what you do" (Amit & Zott, 2012). Business model innovation is a change in emphasis from developing individual technologies (Johnson & Suskewicz, 2009). Furthermore, it is emphasized that a BM is not made only for the company, but involves a broader set of stakeholders, which requires a territorial perspective of value to innovate and transform existing Business Models (Evans et al, 2017).

Similarly, SBM capture economic, social and environmental value for a wide range of stakeholders (Bocken et al, 2013). To address the pressing challenges of a sustainable future, innovations must introduce change at the heart of the BM to address unsustainability rather than to counteract negative business outcomes (Böttcher et al., 2024). The ambition of NSBM must be focused on maximizing societal and environmental benefits, rather than economic gain alone (Martínez-Campillo et al., 2020). The literature perceives SBM as a modification concept linked to specific characteristics and objectives, either by: (1) integrating objectives, designs and principles aimed at sustainability, or (2) including sustainability aspects in value propositions, creation and delivery, and capture (Evans et al, 2017).

## 2. Method

The major interest of this study is to carry out an in-depth analysis of current research on NBMS and the creation of territorial value. To achieve this goal, we used the bibliometric analysis methodology (Hassan & Duarte, 2024). This analysis has recently gained popularity as a research tool and has piqued scholar interest (Donthu et al., 2021). This approach increasing popularity is ascribed to its capacity to handle vast amounts of data and its versatility across a range of software programs, most notably VOSviewer. In order to convey an overview of the intellectual framework of a specific subject, researchers utilize bibliometric analysis to identify authors, citation patterns, and prevailing trends in a particular field or publication (Donthu et al. 2021).

The study consists of a multi-stage process, including literature search, data collection and pre-processing, bibliometric analysis, keyword analysis, and content analysis. By following this systematic approach, we tried to provide a comprehensive and detailed analysis of the research topic, which allowed us to identify current trends, patterns, and structure of the literature. This method allowed us to ensure that the literature was included and the collected data were analyzed and interpreted effectively. In order to guarantee a thorough and objective review of the literature, encompassing the research chain: (sustainable business models) and (territorial value creation), our research approach placed no limitations on the kinds of publications that were included in the analysis using Web of Science. However, the second method (Zotero) uses a criterion for article selection that is based on the citation rate. We carried out this bibliometric study in 2 ways: The first is to process articles previously requested from several databases and processed on choice (through Zotero). The second is to conduct a comprehensive literature search in the academic database Web of Science.

Additionally, we conducted a keyword analysis using VOSviewer to figure out the keywords used by authors in the literature on sustainable business models and territorial value creation. This allowed us to map the most important keyword groups in the network. Finally, a cluster analysis is used to group related keywords based on their co-occurrence frequencies. The cluster analysis results point out keyword connections and the clustering of identical keywords. We used cluster analysis to identify key themes in the literature and proposed future research areas based on these clusters. To accomplish this, we examined and analyzed articles to determine essential topics.

# 3. Results and Discussion

## 3.1. Through Zotero

The first step of the study consisted of conducting a literature search in several academic databases. These databases were chosen because of their reputations, as well as their widespread use among researchers around the world. To carry out this search, we identified a set of relevant keywords, which we applied to the keywords, titles and abstracts of the articles. In order to provide a thorough and unbiased examination of the literature whose search phrase was new Sustainable Business Models and territorial value creation; our research technique did not place any constraints on the kinds of documents that were included in the analysis.

Data collection and pre-processing comprised the study second phase. More precisely, we used Zotero software to export every scientific publication in RIS format. VOSviewer software, a popular tool for analyzing scientific literature, was utilized to conduct a bibliometric analysis in the third phase of the study (Martins et al., 2024). The 115 papers in the dataset were retrieved and examined between 1999 and 2023. As previously mentioned, this bibliometric analysis was used to pinpoint research trends and monitor the development of this topic over time (Wen et al., 2021).

In addition, we carried out keyword analysis to identify the main keywords used by authors in the literature on MSI and territorial value creation. This enabled us to map the most significant groups of keywords within the network. Lastly, the research categorized the terms according to patterns of co-occurrence. The analysis's outcome emphasizes the connections among the keywords. Based on these connections, we proposed future study objectives and used the latter to identify the major themes in the literature.

This method allows to visualize the knowledge structure and to quickly understand the current state of the BMS field and value creation in a given territory. of the 212 keywords provided by the authors of the articles and included in the final analysis, the keywords that appeared the most were (Figure 1): BM (total link strength 25), circular economy (total link strength 18), value creation (total link strength 17), sustainability (total link strength 16), BMS (total link strength 16).

| Selected | Keyword | Occurrences | Total link strength |
|---|---|---|---|
| ☑ | business model | 26 | 25 |
| ☑ | circular economy | 13 | 18 |
| ☑ | value creation | 10 | 17 |
| ☑ | sustainability | 9 | 16 |
| ☑ | sustainable business model | 11 | 16 |
| ☑ | business model innovation | 12 | 14 |
| ☑ | product service system | 7 | 10 |
| ☑ | territory | 9 | 10 |
| ☑ | innovation | 9 | 9 |
| ☑ | sustainable development | 6 | 8 |
| ☑ | stakeholders | 7 | 7 |
| ☑ | business model for sustainability | 5 | 6 |
| ☑ | functional service economy | 5 | 6 |

**Figure 1. Keyword co-occurrence table**

The graphical interpretation (Figure 1) showed the links and nodes between keywords through their co-occurrences. The size of the nodes indicates the frequency of occurrence. The curves between the nodes represent their co-occurrence in the same publication. The shorter the distance between two nodes, the greater the number of co-occurrences of the two keywords. The font size represents the frequency of occurrence. Keywords such as “sustainability”, “circular economy”, “BMS”, “BMI” and “value creation” are the most common.

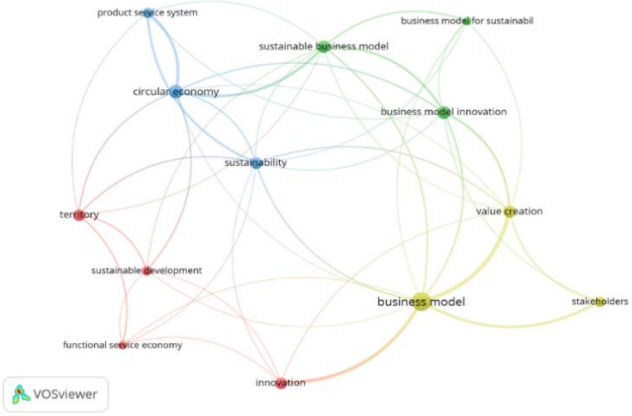


**Figure 2. Keyword co-occurrence network**

## 3.2. Through Web of Science

This database was chosen because of its reputation as the largest database of abstracts and citations of user-reviewed literature, as well as its widespread use among researchers worldwide (Parmentola et al, 2022). To conduct the search, we identified a set of keywords, which we applied to all the articles obtained. Our research methodology did not impose any restrictions on the types of documents included in the analysis, thus ensuring a complete and impartial analysis of the literature in the search chain. In the second stage of the study, we proceeded to collect and pre-process the data. In the third phase of the study, a bibliometric analysis was carried out using the VOSviewer software, a tool commonly used for the analysis of scientific literature. The dataset for the analysis included 1648 articles, which were analyzed and were identified between 1998 and 2024 on the WOS database.

We were also able to comprehend how research was distributed over time and space thanks to the analysis. This research provided us with insight into the most important contributions in this discipline by finding the most productive authors and the most pertinent papers. Using the same software, we also conducted a keyword analysis to determine the primary terms that authors in the literature on innovative sustainable business models and territorial value creation utilized. We were able to map the network most important keyword groups as a result.

Lastly, comparable keywords are grouped according to their co-occurrence patterns using cluster analysis. The cluster heatmap, a visual representation of the cluster analysis's outcome, shows the connections between terms and how related keywords are grouped (Yu et al., 2020). We used cluster analysis to find the primary themes in the literature and, using these clusters, recommend future lines of inquiry. We accomplished this by reading and evaluating the publications to determine their key ideas (Ikram and Elhaj, 2023).

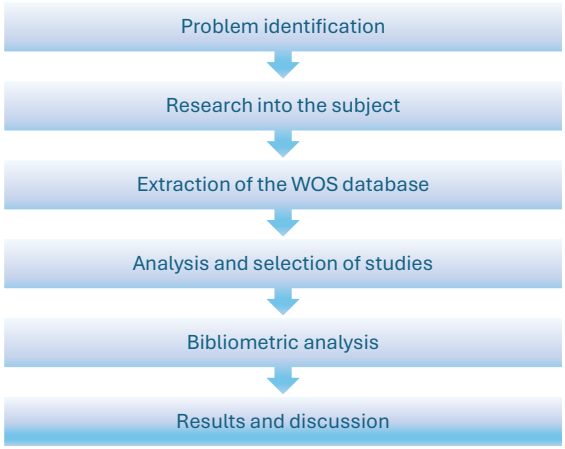


**Figure 3. Summary diagram of the methodology adopted**

## 3.3. Presentation and interpretation of results

This section presents the results of the bibliometric analysis through WOS and their interpretations combined with several interpretations. It focuses on the articles exploited from the research. Finally, it deals

with some statistics through various bibliometric analyses (by country, scientific journal, author and publication).

WOS search script, the script of the search carried out on the Web Of Science database is presented above. It includes the scope of our research work. Search script: ("business model" OR "sustainable business model") AND ("territorial value" OR "creating territorial value" OR "territorial value creation" OR "value creation"OR "creating value").

Focus on articles, according to our results, the 10 most-cited articles belong to 8 different publishers (Table 1). The first most-cited article was published by "The Journal of cleaner Production", with a total of 1883 citations. The 2nd and 3rd most-cited articles were published by "The Journal of Management" with 1073 citations and "Academy of Management" with 665 citations.

**Table 1. Table of the 10 most cited documents on research in sustainable business models and the creation of territorial value with publication date**

| Document Title | Authors | Year | Source | CT |
|---|---|---|---|---|
| A literature and practice review to develop sustainable business model archetypes | Bocken, NMP; Short, S.W.; Rana, P; Evans, S | 2014 | Journal of cleaner production | 1883 |
| Fifteen Years of Research on Business Model Innovation: How Far Have We Come, and Where Should We Go? | Foss, NJ; Saebi, T | 2017 | Journal of Management | 1073 |
| A CRITICAL ASSESSMENT OF BUSINESS MODEL RESEARCH | Massa, L; Tucci, CL; Afuah, A | 2017 | Academy of Management | 665 |
| Sustainable business model innovation: A review | Geissdoerfer, M; Vladimirova, D; Evans, S | 2018 | Journal of cleaner production | 598 |
| Fortune favors the prepared: How SMEs approach business model innovations in Industry 4.0 | Müller, JM; Buliga, O; Voigt, K.I. | 2018 | Technological Forecasting and social change | 593 |
| Business Model Innovation for Sustainability: Towards a Unified Perspective for Creation of Sustainable Business Models | Evans, S; Vladimirova, D; Holgado, M; Van Fossen, K; Yang, M.Y.; Silva, E.A.; Barlow, C.Y. | 2017 | Business strategy and the environment | 589 |
| The open innovation research landscape: established perspectives and emerging themes across different levels of analysis | Bogers, M; Zobel, A.K.; Afuah, A; Almirall, E; Brunswicker, S; Dahlander, L; Frederiksen, L; Gawer, A, Gruber, M; Haefliger, S; and more. | 2017 | Industry and innovation | 569 |
| A Review and Typology of Circular Economy Business Model Patterns | Lüdeke-Freund, F; Gold, S; Bocken, NMP | 2019 | Journal of industrial ecology | 499 |
| From rapid prototyping to home manufacturing: How 3D printing is changing business model innovation | Rayna, T; Striukova, L | 2016 | Technological Forecasting and Social Change | 457 |
| Digital transformation and customer value creation in Made in Italy SMEs: A dynamic capabilities perspective | Matarazzo, M; Penco, L; Profumo, G; Quaglia, R | 2021 | Journal of business research | 416 |

Number of publications and growing research interest. Over a period of 26 years, a total of 1648 research articles were published (Figure 4). The oldest publication dates back to 1998. It is suggested that research on Sustainable Business Models and the creation of territorial value has attracted a great deal of interest since 2009. In 2010, a decrease in publications is observed. However, this figure increases quite rapidly, testifying to the emergence of the discipline of Sustainable Business Models in the scientific literature. From 2011, the trend shows a rapid increase in the number of documents each year until 2021. Therefore, it is expected that the annual publications will continue to increase. However, most of these articles are not open access and the user must pay to access the information they contain. Growth appears to slow for 2024. However, this is because our 2024 sample is incomplete as testing was conducted in August 2024. Publications for the remainder of 2024 are therefore absent (Web of Science).

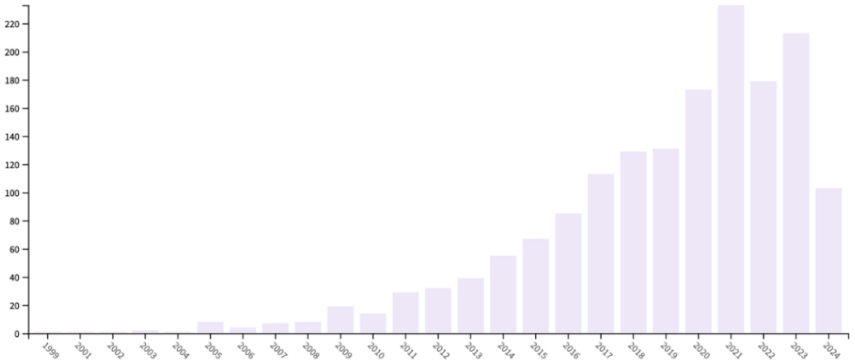


**Figure 4. Number of articles per year (1998-2024)**

We have selected 25 most important sources that are in most of the articles.

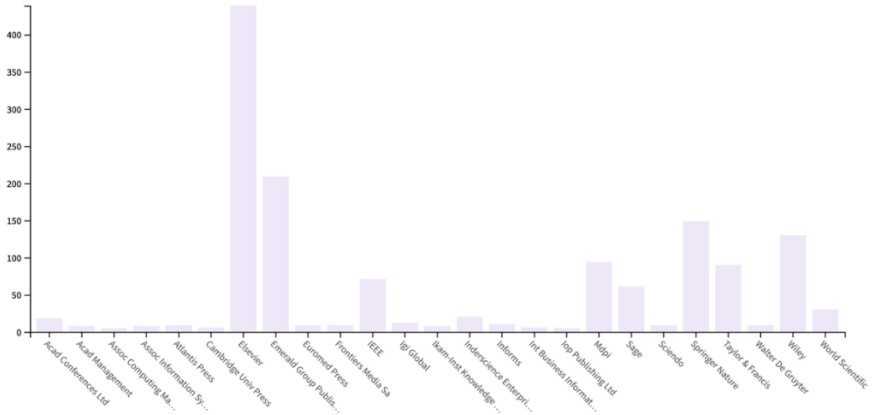


**Figure 5. Number of articles per source**

Of the 25 sources, Elsevier tops the list, followed by Emerald Group Publis, and finally, Springer Nature. There Figure 6 reveals that the research areas on sustainable business models and territorial value creation are vast and that many research groups around the world are actively working in these areas. The analysis of the themes showed that economic concerns are the main focus of the studies. This is demonstrated by the total number of publications classified in the following areas: management, business and green and sustainable scientific technology.


**Figure 6. Research areas on sustainable business models and the creation of territorial value**

NB: The areas of the graph are not strictly proportional to the values of each input

In summary (Table 2), the management field comes first with 687 documents, in second place is the business field with 660 documents and in third place comes the green and sustainable scientific technology with 213 documents.

**Table 2. Document distribution table by research field**

| Research area | Number of documents | % of 1648 |
|---|---|---|
| Management | 687 | 41.687% |
| Business | 660 | 40.049% |
| Green Sustainable Science Technology | 213 | 12.925% |
| Environmental Sciences | 194 | 11.772% |
| Environmental Studies | 153 | 9.284% |
| Industrial Engineering | 132 | 8,010% |
| Computer Science Information Systems | 101 | 6.129% |
| Environmental Engineering | 95 | 5.765% |
| Economics | 80 | 4.854% |
| Operations Research Management Science | 75 | 4.551% |
| Regional Urban Planning | 56 | 3.398% |
| Business Finance | 51 | 3.095% |
| Computer Science Theory Methods | 51 | 3.095% |
| Engineering Manufacturing | 50 | 3.034% |
| Information Science Library Science | 49 | 2.973% |
| Engineering Electrical Electronics | 42 | 2.549% |
| Computer Science Interdisciplinary Applications | 39 | 2.367% |
| Telecommunications | 31 | 1.881% |
| Development Studies | 27 | 1.638% |
| Interdisciplinary Social Sciences | 26 | 1.578% |
| Energy Fuels | 24 | 1.456% |
| Hospitality Leisure Sport Tourism | 24 | 1.456% |
| Computer Science Software Engineering | 23 | 1.396% |
| Multidisciplinary Sciences | 20 | 1.214% |
| Multidisciplinary Sciences | 17 | 1.032% |

Figure 7 shows the 25 most productive countries that contribute to the growth of global research activity on sustainable business models and the creation of territorial value. In the top five positions, we find England, followed by Germany, then Italy, then China and finally the United States. This indicates that these five countries are the key players in the advancement of research on Sustainable Business Models and the territorial value creation.

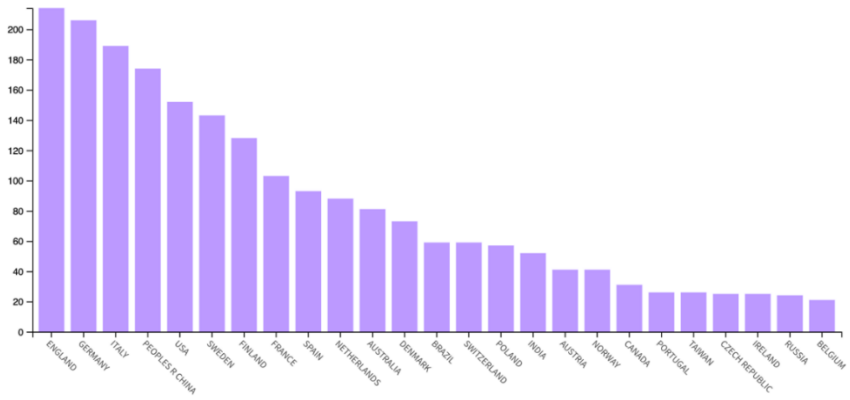


**Figure 7. The 25 most productive countries contributing to the growth of research activity on sustainable business models and the territorial value creation**

Number of articles per author, to assess an author's impact in a specific field, it is essential to consider several parameters over and above the number of publications. We analyzed the number of publications produced by authors. We selected all authors with a minimum of 5 papers. Among them, nine (9) were retained, including Parida, Vinit with 9 documents, Amit, Raphael, and Petruzzelli, and Antonio Messenia with 7 documents each (Figure 8).

| Selected | Author | Documents | Citations | Total link strength |
|---|---|---|---|---|
| ☑ | parida, vinit | 9 | 821 | 0 |
| ☑ | amit, raphael | 7 | 4461 | 6 |
| ☑ | petruzzelli, antonio messeni | 7 | 102 | 5 |
| ☑ | luedeke-freund, florian | 7 | 1275 | 0 |
| ☑ | zott, christoph | 6 | 4229 | 6 |
| ☑ | evans, steve | 6 | 1299 | 0 |
| ☑ | panniello, umberto | 5 | 69 | 5 |
| ☑ | clauss, thomas | 5 | 382 | 0 |
| ☑ | haftor, darek m. | 5 | 102 | 0 |

**Figure 8. Table of number of documents by author**

Keyword co-occurrence and keywords (graphical summary). In bibliometrics, keyword co-occurrence analysis is a technique often used to determine the most associated and relevant terms in a particular research field. This analysis can help identify trends and critical themes in a particular discipline. 1879 keywords were examined in order to determine the most crucial areas of Territorial Value Creation and Sustainable Business Models. The keywords that appeared at least twelve times in all of the papers gathered were taken into consideration for creating the co-occurrence map. 56 keywords in all met this criterion and were linked to one another. The "time display" feature of VOSviewer, a potent tool for visualizing the scientific literature on portfolio management and decision-making, was used in this study. This feature makes it easier to spot new subjects and provides a thorough method for doing extensive and nuanced field analysis (Figure 9).

| Selected | Keyword | Occurrences | Total link strength |
|---|---|---|---|
| ☑ | value creation | 245 | 1060 |
| ☑ | innovation | 187 | 870 |
| ☑ | business model | 216 | 841 |
| ☑ | business model innovation | 131 | 598 |
| ☑ | strategy | 86 | 476 |
| ☑ | performance | 85 | 427 |
| ☑ | management | 75 | 417 |
| ☑ | design | 71 | 363 |
| ☑ | future | 63 | 338 |
| ☑ | framework | 65 | 330 |
| ☑ | value capture | 54 | 315 |
| ☑ | sustainability | 62 | 307 |
| ☑ | perspective | 51 | 275 |
| ☑ | technology | 40 | 227 |
| ☑ | challenges | 32 | 217 |
| ☑ | entrepreneurship | 41 | 209 |
| ☑ | capabilities | 34 | 198 |
| ☑ | firm performance | 33 | 192 |
| ☑ | knowledge | 34 | 185 |
| ☑ | industry | 32 | 170 |
| ☑ | sustainable business model | 34 | 170 |
| ☑ | impact | 31 | 161 |
| ☑ | circular economy | 29 | 152 |
| ☑ | business models | 41 | 148 |
| ☑ | dynamic capabilities | 24 | 145 |
| ☑ | opportunities | 25 | 137 |
| ☑ | value proposition | 21 | 130 |
| ☑ | systems | 22 | 123 |
| ☑ | creation | 21 | 120 |
| ☑ | competitive advantage | 17 | 112 |
| ☑ | digitalization | 16 | 100 |
| ☑ | governance | 17 | 99 |
| ☑ | firm | 17 | 96 |
| ☑ | strategies | 22 | 96 |
| ☑ | resource-based view | 13 | 94 |
| ☑ | transformation | 15 | 87 |
| ☑ | corporate sustainability | 15 | 85 |
| ☑ | big data | 14 | 84 |
| ☑ | firms | 16 | 84 |
| ☑ | of-the-art | 14 | 84 |
| ☑ | competition | 16 | 83 |
| ☑ | networks | 14 | 82 |
| ☑ | servitization | 14 | 82 |
| ☑ | capturing value | 15 | 81 |
| ☑ | economy | 17 | 81 |
| ☑ | stakeholders | 15 | 81 |
| ☑ | internet | 14 | 80 |
| ☑ | sharing economy | 14 | 78 |
| ☑ | digital transformation | 15 | 76 |
| ☑ | business model design | 18 | 69 |
| ☑ | product | 13 | 66 |
| ☑ | tool | 12 | 66 |
| ☑ | sustainable value creation | 13 | 65 |
| ☑ | value co-creation | 14 | 64 |
| ☑ | value-creation | 12 | 55 |
| ☑ | case study | 15 | 47 |

**Figure 9. Keyword co-occurrence table**

As shown in Figure 9, the term "value creation" is the most frequently encountered keyword, with a total of 245 occurrences identified, as well as 1060 links to other keywords. In addition, the term "business model" was observed 216 times and was associated with 841 links to other keywords. Thus, the term "innovation" was noticed 187 times with 870 links to other keywords. It is not surprising that the keywords "value creation", "business model", and "innovation" are among the most frequently encountered terms in a search related to the creation of territorial value and sustainable business models. These terms reflect the widespread recognition of the influence of innovation on sustainable business models and the importance of this bias in order to create territorial value.

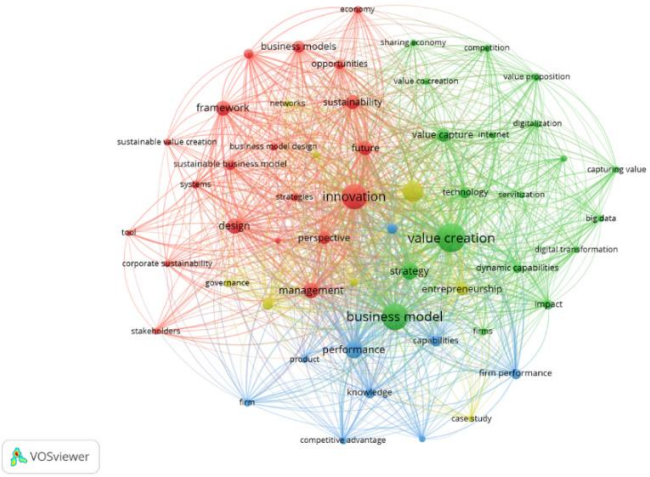


**Figure 10. Cluster of keyword relationships**

The Figure 10 above not only presents the most frequently used keywords in the literature related to value creation through business models, but also highlights the emerging topics in this field. To understand the topics that have attracted researchers and practitioners of business models in general over the last ten years, we find through the analysis of the keywords extracted from the literature that "Value creation", "Business Model", "Innovation", "Strategy", "Performance" "Management", "Design", "Future", "Framework", "Value capture", "Sustainability", "Perspective" and "Technology" have been most frequently used in recent years, as shown in the figure. These keywords are related to the growing context of business management under the prism of sustainability. Referring to sustainable innovation and often associated with the ecological economy or sustainable economy movement, innovative BMs linked to sustainable development have also appeared during the 2000s (Silvestre & Ţîrcă, 2019). The notion of sustainable business model thus makes the link between value creation and sustainability (Laukkanen & Tura, 2020).

Transforming a company's economic value, generally speaking, into a sustainable value and then into a territorial value requires a radical change in the set of norms and values that build their common culture, referring to a well-defined territory (Waddock, 2020). To do this, leaving behind the "business as usual" policy, the value proposed to customers must consider sustainability factors (Piscicelli, Ludden, and Cooper 2018). The latter cannot be built from a simple utilitarian perspective, even if the sustainable solutions proposed to date by companies remain minor in the face of numerous environmental and social challenges (Bocken and Geradts 2020). Value creation must reconstitute how companies deliver and capture value while considering environmental and social factors (Evans et al., 2017). It is for this reason that innovations, in general, technological or social aim to reduce these challenges (Plečko and BradačHojnik 2024). Innovation, management, sustainability, design, performance, network, technology, opportunities, and stakeholders are the keywords in the foundation of a sustainable business model and territorial value (Del Giudice et al. 2022; Parida, Sjödin, and Reim 2019). This logic of links between these keywords becomes the cornerstone of BMS, as they constitute intangible strategic assets (Ujwary-Gil, 2017).

Overall, founding a BMS requires broadening the company's perimeter, not only by extending it to include stakeholder issues (Freudenreich, Lüdeke-Freund, and Schaltegger 2020) but also by interacting with the system in which the company operates. The literature refers to the territorial dimension as a crucial component in the development of an SBM. According to Gomes et al. (2022), this territory-based approach is predicated on the idea that the territory is an endogenous factor for the business. This means that the territorial dimension becomes a crucial component of the business's value creation, manifesting as a "territorialized value" that includes labor, market, financial, and territorial dimensions. The territorial dimension can be a crucial component in enhancing the value offer in certain MSEs, such the functionality economy (Berne et al., 2019).

It is therefore on the basis of this approach to sustainable development and observations from experiments carried out in the field that the integration of the territorial dimension, in line with the work carried out by several authors, seemed to us essential to understanding the construction of new economic models generating both sustainable value for the company and, above all, for the territory (Jabłoński 2018).

## 4. Conclusion

In this analysis, we have presented a series of bibliometric analyses on two samples, the first of 115 and the second of 1648 scientific publications related to sustainable business models and the creation of territorial value. Thanks to some of these analyses, network visualizations were able to be carried out with the VOSviewer software. All of these observations make it possible to acquire new knowledge on this emerging field in the

scientific literature and to propose a representation of the field of study. Hundreds of publications on the subject have taken place in recent years and no bibliometric analysis of this scale had been carried out until now. We used two databases in order to store as many publications as possible.

In the first step of our work, we established the context of the study. The literature review was defined in the second step, and the third step explains the methodology used. The results were described and interpreted using bibliometric statistics combined with network visualizations. These results can be used in future studies related to sustainable business models and the creation of territorial value, mainly in quantitative works, to confirm or even refute the results of this research. Indeed, although there are several studies that directly evaluate sustainable business models and territorial value creation, there is a lack of work on the direct relationship between sustainable business models and territorial value creation. The direct relationship between sustainable business models and the creation of territorial value makes the information from this research useful for future studies.

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All authors have equal contributions to the paper. All the authors have read and approved the final manuscript.

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