Bibliometric Analysis on the EU Taxonomy

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Background & Objectives

- The European regulator has enacted multiple legislative packages as part of their action plan on sustainable finance.
- The primary objective of these legislative packages is to "reorient capital flows towards sustainable investment" (European Commission, 2018, p. 2).
- Academic interest in the classification and performance of sustainable investments has also gained significant momentum (Friede et al., 2015; Zhang et al., 2019).
- Little is known about the interconnection between the ongoing regulatory efforts of the European Commission and research in sustainable finance.
- The legislative packages focus on:
    - A taxonomy for sustainable activities,
    - Corporate sustainability-related disclosures,
    - Sustainability-related disclosures in the financial services sectors,
    - Sustainability-related investment benchmarks and standards
- This bibliometric analysis aims to address this research gap by exploring pertinent finance research clusters in the context of the EU sustainable finance framework.

Methods & Data

Search String

- Bibliometrics involves the use of mathematical and statistical methods to assess and interpret extensive collections of academic literature (De Bellis, 2009).
- Tranfield et al. (2003) emphasize that the initial step in a review process involves carefully designing search strings tailored to the study.
- To provide a comprehensive bibliometric analysis, the Web of Science Core Collection was used to ensure accuracy and standardization (X.-Q. Chen et al., 2023; Khan et al., 2022). The search string incorporated the following terms, categories, and publication years:
    (EU OR "European") AND (regulat* OR polic* OR framework OR directive) AND ((Sustainab* OR Green OR Climat)) (Topic) Business Finance (Web of Science Categories) and Article or Early Access or Review Article (Document Types) 2023 or 2022 or 2021 or 2020 or 2019 or 2018 or 2017 (Publication Years)
- On 15 September 2023, the search string generated a corpus of 248 publications. After manual review, 194 fitting publications were identified.

Methods & Data

Clusters

- To identify current topics, research fronts (also called clusters) were calculated, which represent the state-of-the-art thinking of their respective field (Chen, 2006).
- These clusters were calculated using a hybrid similarity measure, which includes a lexical measure and a bibliographic coupling measure (Meyer-Brötz et al., 2017).
- A research front embodies the most advanced and current insights within a field of study (Chen, 2006).
- The clustering was executed through Louvain Clustering (Blondel et al., 2008), and the final visualization employed the Fruchterman-Reingold algorithm (Fruchterman & Reingold, 1991).
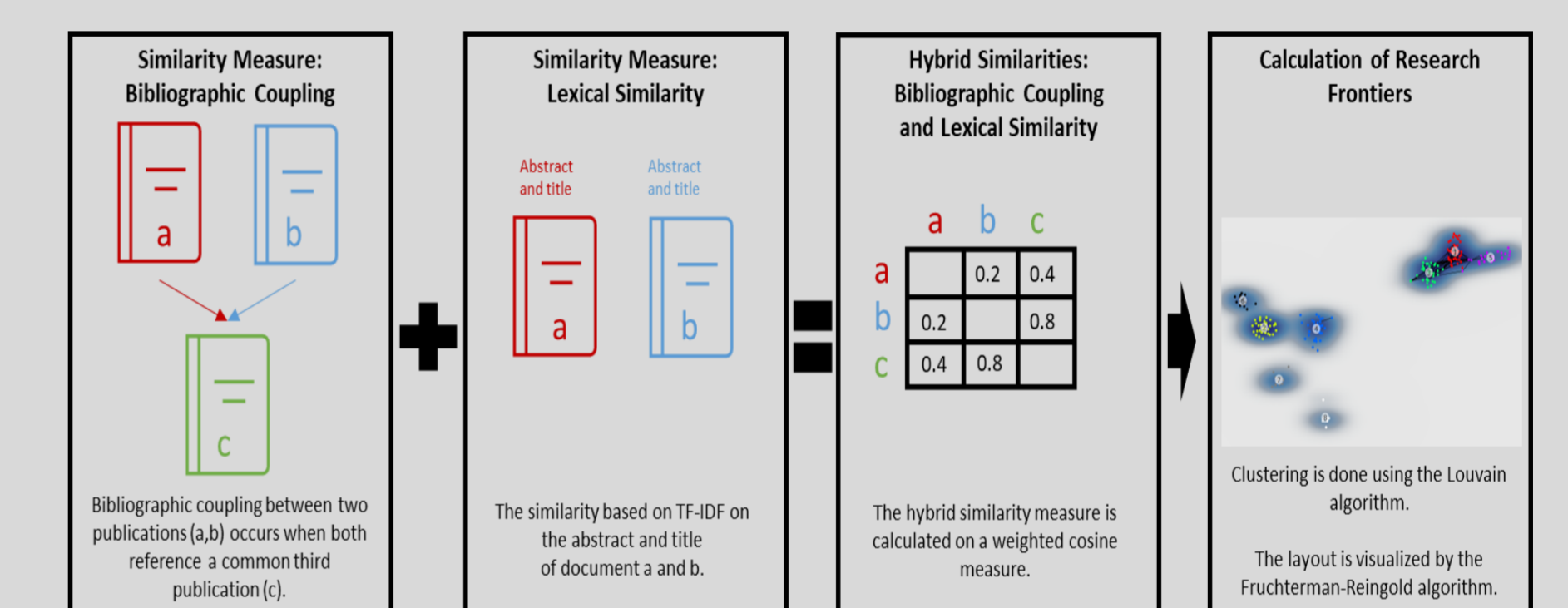
Results

Descriptive Analysis

- The figure below shows the statistics of publications covered by the search string described in the methods sections.
- The field has been growing since 2017, suggesting increased interest in the context of the EU sustainable finance initiative.
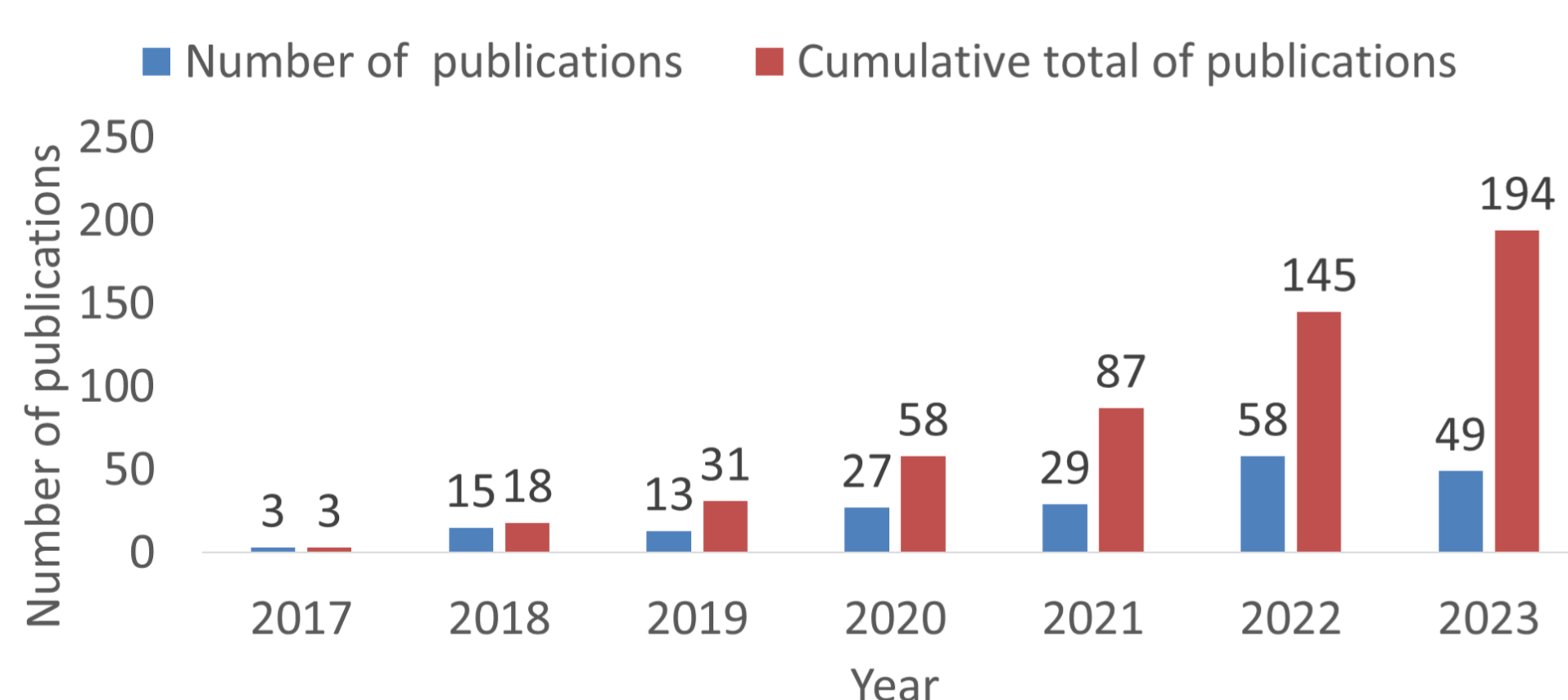
- The table below shows the top five leading journals publishing articles dealing with the EU sustainable finance framework.

Journal Name	Nr. of Articles	ABDC Ranking	ABS AJB Ranking
Meditari Accountancy Research	31	A	1
Journal of Applied Accounting Research	13	B	2
Sustainability Accounting, Management and Policy Journal	12	B	
Journal of Risk and Financial Management	10	B	
Journal of Sustainable Finance & Investment	10		1

Results

Cluster

- The calculation of research frontiers using a hybrid similarity measure consisting of a lexical measure and bibliographic coupling provided eight clusters.
- The table below shows the name of each cluster and the number of articles belonging to each cluster.
- In the figure below, every dot symbolizes a scientific publication, with each research frontier identified by a number and distinguished by color.
- The closeness of the clusters indicates a similarity in their content.
- The edges show the similarity between two publications, with the 10% most similar edges displayed.

Cluster	Cluster name	Number of articles
1	Corporate Financial Reporting and Compliance	39
2	European Financial Markets and ESG Risks	33
3	Sustainability Practices and Reporting in Business	33
4	Strategies for Sustainable Business Development	32
5	Financial Implications of Corporate Social Responsibility	22
6	Banking Sector Dynamics and Financial Services	15
7	Green Finance and Climate-Related Investments	13
8	Energy Sector Efficiency and Economic Analysis	8

Results

Research Cluster for the period 2017-2023

Cluster 6: Banking Sector Dynamics and Financial Services
Cluster 2: European Financial Markets and ESG Risks
Cluster 7: Green Finance and Climate-Related Investments
Cluster 4: Strategies for Sustainable Business Development
Cluster 8: Energy Sector Efficiency and Economic Analysis
Cluster 3: Sustainability Practices and Reporting in Business
Cluster 1: Corporate Financial Reporting and Compliance
Cluster 5: Financial Implications of Corporate Social Responsibility

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