



Zbigniew KORZEB • Paweł NIEDZIÓŁKA • Danuta SZPILKO •  
Antonio de la TORRE

## A BIBLIOMETRIC ANALYSIS OF ESG PERFORMANCE IN THE COOPERATIVE BANKS: FROM THE CURRENT STATUS TO FUTURE DIRECTIONS

Zbigniew **Korzeb** (ORCID: 0000-0001-9690-3842) – *Department of Management, Economy and Finance, Białystok University of Technology*

Paweł **Niedziółka** (ORCID: 0000-0002-1659-7310) – *Institute of Banking, SGH Warsaw School of Economics*

Danuta **Szpilko** (ORCID: 0000-0002-2866-8059) – *International Department of Logistics and Service Engineering, Białystok University of Technology*

Antonio **de la Torre** (ORCID: 0000-0001-7839-0385) – *Department of Financial Economics and Operations Management, University of Seville, Spain*

Correspondence address:

o. Stefan Tarasiuk Street 2, 16-001 Kleosin, Poland

e-mail: z.korzeb@pb.edu.pl

**ABSTRACT:** The purpose of the study is to systematise research on the ESG activities in cooperative banks. Its objective is also to create thematic clusters of research directions dedicated to ESG performance in cooperative banks. The study is based on a bibliometric analysis of articles from Scopus and Web of Science between 2010 and March 2024. Our results allow the identification of 13 clusters of research directions dedicated to ESG performance. The research idea is justified by the importance of sustainable banking and the need to systematise knowledge on ESG practices in cooperative banks and to identify areas where in-depth research is needed. The originality of the study consists in that we do not refer to a specific geographical area, method and period, but on the basis of citation rates and the number of publications focusing on a given issue, and identify research directions that create space for further in-depth research.

**KEYWORDS:** cooperative banks, ESG, bibliometric analysis

## Introduction

In Europe, the beginning of the savings and credit cooperative movement is considered to have been initiated by the activities of Franz Hermann Schulze-Delitzsch, setting up credit cooperatives in the cities for the petty bourgeoisie, and Friedrich Wilhelm Raiffeisen, carrying out analogous activities in the countryside for poor farmers, which took place in the 19<sup>th</sup> century (Engelhardt, 1990; Aschhoff, 1982). Their main aim was to create institutions to meet the immediate financing needs of small entrepreneurs, workers and peasants and to encourage these groups to accumulate savings on favourable terms. The reason for doing so was primarily to make the poor strata of society independent of the usurious interest rates commonly applied at the time to granted loans. Co-operative banks were intended to reinvest profits in the local market, supporting its development, and their competitive advantage was their knowledge of the specifics of economic activity in a given region and tailor-made risk assessment procedures with an important role of behavioural aspects. Associated with cooperative banking is the concept of social banking, which aims to create a social or environmental benefit (Weber, 2011).

Today, cooperative banks represent a significant segment of the credit institution market in Europe. In countries such as France, Austria, Finland, and Germany, they account for more than 20% of the deposits and loans of the entire sector (EACB, 2019). They provide their services to approximately 227 million customers, i.e. almost 50% of the entire population of the European Union (EACB, 2023). Two different groups of cooperative banks have developed in Europe. On the one hand, these are multinational corporations loosely based on cooperative principles, and on the other, smaller banks with a local focus of activity (Cornée et al., 2018).

According to the theory, cooperative banks are widely seen as sustainable alternatives to commercial and investment banks focused on stakeholder value creation. Cooperative credit banks (CCBs) prioritise the stakeholder value model over the shareholder value model, aiming to generate profits to sustain their business for the benefit of the community rather than solely focusing on maximising profits (Ayadi et al., 2023). Through their activities and specific business model, cooperative banks have placed sustainability at the centre of their identity. Their customers are individuals, farms, businesses and local government institutions, mainly in rural areas and small and medium-sized towns. They are, therefore, strongly linked to the particular regions in which they operate. Cooperative banks are actively involved in the financing of many investment projects, directly influencing the development of infrastructure and the social economy in their area of operation (Giagnocavo et al., 2012). At the same time, they support the development of local communities and initiatives undertaken for their benefit: environmental, cultural or sporting. A rather underestimated feature of regional support by cooperative banks is the reinvestment of profits in the regions in which they have been earned.

The aim of this article is to systematise academic research on the evaluation of ESG activities undertaken by cooperative banks. The systematic literature review was based on a bibliometric analysis of articles retrieved from Scopus and Web of Science databases. The search was limited to material published between 2010 and 15<sup>th</sup> March 2024. After applying limiting criteria in the search process, 244 records were retrieved from Scopus and 182 from Web of Science. After removing duplicates, a set of 232 unique literature items was extracted for further analysis. This study presents an analysis of the current status and future potential research directions resulting from the identified research gaps. It presents a number of findings, including the most productive authors, organisations, countries and journals, the most cited articles and the distribution of keywords. In addition, a map indicating how the topic of ESG risk in cooperative banks (keywords) has evolved over the years is presented. The results of the study allow the identification of 13 clusters of research directions dedicated to ESG performance in cooperative banks. The research problem addressed by this study boils down to the question of which ESG risk management issues in cooperative banks have been addressed in the academic research conducted to date, how they can be systematised and whether there are any significant research gaps.

The paper fills a research gap in the area of bibliometric analysis of cooperative banks by finding, summarising, and analysing existing studies that identify ESG issues. Its objective is also to create thematic clusters of research directions dedicated to ESG performance in cooperative banks. This research idea is needed for the following reasons. Firstly, the growing importance of sustainable

banking and ESG risk analysis as a distinct research area calls for a comprehensive review of the existing literature. Secondly, the study makes use of much broader databases than previous bibliometric analyses, i.e. both Web of Science and Scopus, which allows a comprehensive approach as well as the diagnosis and categorisation of existing trends in the research in question.

The remainder of this article is structured as follows. Section 2 reviews the most significant literature (literature review). Section 3 describes the methodology employed, i.e., the bibliometric analysis procedure that consists of database, keywords and criteria selection, data selection, quantitative analysis, and finally, the creation of thematic clusters. Section 4 and 5 present and discuss the results obtained. Section 6 summarises and presents the main conclusions reached as well as stresses the originality of the study and its practical implications for different groups of stakeholders.

## Literature Review

The operating model of cooperative banks differs from typical commercial banks. The most important specific principles include (i) member ownership – the bank is owned by cooperative members who are also its customers; (ii) democratic governance based on the “one person – one vote” principle; (iii) they are predominantly local banks whose presence supports the local community and the development of the region, (iv) cooperative banks operate on the basis of relationship banking and concentrate their activities in rural areas and smaller towns, providing their products and services mainly to farmers, small and medium-sized enterprises and households, (v) making profits is essential for the development of the banks while maximising profits is not their main task, a large part of the net profits has to be retained, (vi) cooperative banks have a long tradition of commitment to sustainability and social values (Poli, 2019; Cornée et al., 2018; Lang et al., 2016).

By basing their business strategies on their core operations – deposits and loans – and distancing themselves from complex investment banking instruments, cooperative banks have been able to avoid the situations faced by most commercial banks in the wake of major global financial crises (Meyer, 2018; Fiordelisi & Mare, 2014; Birchall, 2013).

The operating strategy of cooperative banks, based to a large extent on long-term relationships with their customers, who are quite often also their owners, is fairly frequently cited as an explanation for this trend. Catturani et al. (2016) emphasise that cooperative banks are known for their local relationship lending, whereby they collect soft information about borrowers that helps to reduce agency costs related to moral hazard and adverse selection. At the same time, the personal relationships of cooperative bank staff tend to play a far greater role than the large-scale customer acquisition as well as product and service sales programs practised by commercial banks through costly marketing campaigns. This local knowledge and flexibility give local institutions a considerable advantage over commercial banks, whose lending process is increasingly reduced to a standardised calculation of creditworthiness by artificial intelligence or IT applications and making a credit decision on this basis.

Cooperative banks also take advantage of the created niche for customers that commercial banks are not interested in. This applies, in particular, to “informationally opaque” borrowers and even financially excluded customers, such as start-ups, customers operating in risky or unattractive sectors from the point of view of commercial banks, customers with irregular income or who earn their income in a non-standard way (Waupsch, 2017; Becchetti et al., 2016; Catturani et al., 2016).

It should be noted, however, that this type of relationship banking is not burdened with any risks. Indeed, it may contribute to an increase in credit risk and a deterioration of the bank’s credit portfolio by weakening the quality of credit monitoring and the reliable classification of customers into individual credit risk groups, failing to notice or underestimating warning signals regarding the financial condition of borrowers or the default on debt servicing, procrastinating on debt collection and restructuring measures, inadequately identifying indications of loan impairment or verifying the value of accepted collateral, etc. In addition, due to the local scope of their activities, cooperative banks tend to have less diversified portfolios, which may lead to concentration risks resulting from excessive exposure to a single entity or sector.

However, it seems that the biggest problem of cooperative banks is their concept of doing business based on the principle: “We have always done it this way, and it was fine”. In many banks there is

a noticeable reluctance to implement modern products and services. Cooperative banks, therefore, tend to be followers of the directions set by commercial banks rather than initiators of new solutions. It also seems that quite often, the management boards of cooperative banks do not have sufficient knowledge of the use of tools such as artificial intelligence, Big Data technologies, cloud computing, deep learning, etc. The progressive development of technology and the increase in customer expectations of modern financial services present banks with financial challenges that not all cooperative banks are able to meet. Small cooperative banks have limited business opportunities due to a small customer base in their area of operation, low bank headcount and thus organisational problems, and lack of adequate funds for development and investment. They, therefore, do not have the capacity to change their business model, even if it does not work under current conditions.

Nevertheless, this does not change the fact that the majority of the conducted studies unequivocally point to the positive impact of cooperative banks on development in their business and community environment (Agostono et al., 2021; Coccorese & Shaffer, 2021). For example, research conducted in the Polish market by Hasan et al. (2017) indicates that the strong position of cooperative banks fosters new business creation and weakens financial constraints for SMEs. In this regard, they also note that local markets with a clear presence of cooperative banks favour investment and SME development. The same authors (2019) also note that an increase in the number of cooperative banks reduces the growth of unemployment and stimulates the long-term growth of SMEs. Changes that empower local cooperative banks and probably favour the use of the relationship banking model have had a positive impact on SMEs' access to debt and investment.

Sometimes, however, there appear different findings. Hakenes et al. (2015) find that regional savings banks have a positive and significant effect on regional development, proxied by the growth rate of business registration. This effect is particularly strong in relatively poor regions. Also, El Hancha Sfar & Ben Ouda (2016), who analysed the impact of 88 regional cooperative banks in France practising in 26 different regions for the period 2006-2012, note that their study does not suggest that cooperative banks provide more advantages compared to conventional banks. They do, however, establish a positive impact on economic growth. Bernini and Brighi (2018) also acknowledge that the presence of cooperative banks influences local development but show a negative relationship between the development of local economies and the number of their branches.

In summary, cooperative banks are generally institutions that, through their nature of operation and specific business model, are identified with sustainability. The profit made is only a means to achieving goals that are strongly connected to local communities. Cooperative banking is also based on relationality, whereby customers and employees can count on greater support and understanding of their needs.

## Research methods

Table 1 shows the operationalisation of the process used in this article, with the application of the bibliometric analysis method.

To enhance the precision of the search, specific restriction criteria were applied. The search was limited to materials published between the years 2010 and 2024. Articles, conference materials, books, book chapters, reviews, editorial articles, and early access publications were qualified for in-depth analysis. However, publication types such as retracted articles, conference reviews, notes, errata, and letters were excluded. Additionally, articles in languages other than English (e.g., Spanish, Ukrainian, Polish) were also excluded. The search results are detailed in Table 2.

The search for the terms ("cooperative bank\*" OR "co-operative bank\*") and (ESG OR "environment\*" OR "social\*" OR "governance\*" OR "business model\*") across the entire set of articles yielded 244 records from Scopus and 182 records from Web of Science. After applying restriction criteria, 195 records from Scopus and 152 from Web of Science were obtained. Full records in \*csv format were downloaded from each database and then consolidated into one file, resulting in a total of 347 records. After the removal of duplicates, a subset of 232 unique records was selected for further analysis.

**Table 1.** Methodology of bibliometric analysis

No.	Task	Scope
1.	Database selection	Web of Science, Scopus
2.	Keywords selection	(„cooperative bank*” OR „co-operative bank*”) AND (ESG OR „environment*” OR „social*” OR „governanc*” OR „business model*”) in topic
3.	Criteria selection	Period: 2010-2024 Document types: articles, proceedings papers, conference papers, books, book chapters, reviews, early access Language: English
4.	Data extraction, removal of duplicates	Criteria for deleting duplicates: DOI, title, authors
5.	Quantitative analysis of the results	Scope: number publications per year, document types, the most productive authors, institutions, countries, journals
6.	Identification of research areas	Visualisation of the most frequent keywords
7.	Creation of thematic clusters	Visualisation of thematic clusters

**Table 2.** Search result

Stage	WoS	Scopus
Research query	TS= („cooperative bank*” OR „co-operative bank*”) AND (ESG OR „environment*” OR „social*” OR „governanc*” OR „business model*”)	TITLE-ABS-KEY („cooperative bank*” OR „co-operative bank*”) AND (ESG OR „environment*” OR „social*” OR „governanc*” OR „business model*”)
Number of articles before inclusion criteria	182	244
Number of articles after inclusion criteria	152	195

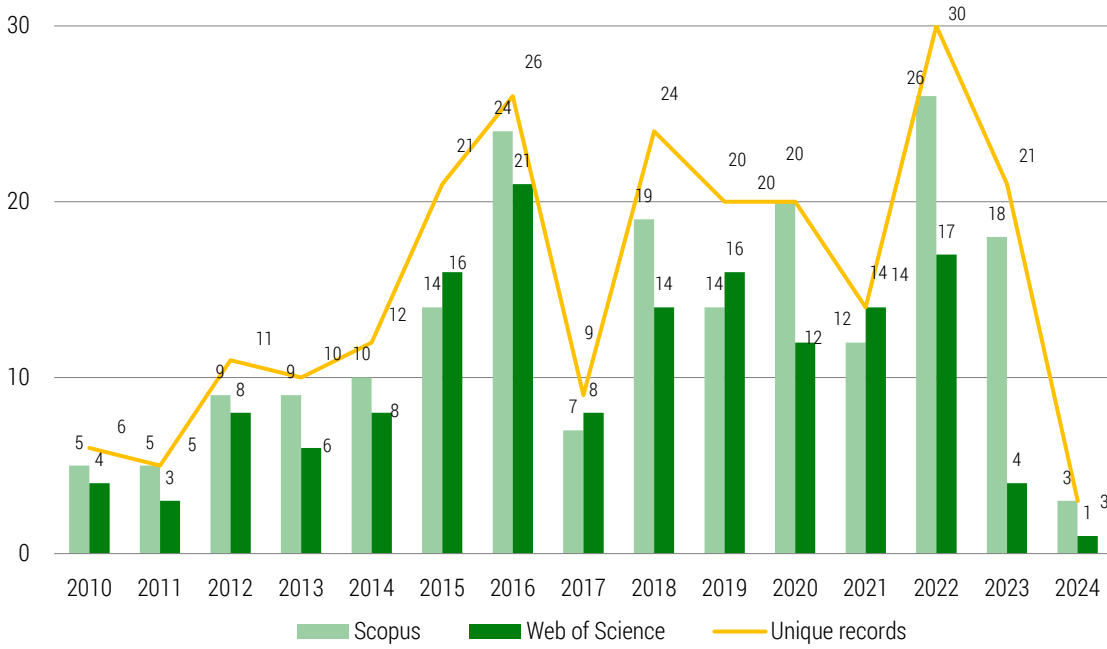
Source: authors' work based on the Scopus and Web of Science databases [20-03-2024].

Utilising the dataset obtained, analyses were carried out to investigate the frequency of publications within specific time intervals and identify the most prolific authors, institutions, countries and journals. The studies also aimed to pinpoint articles with the highest citation count. Furthermore, a keyword analysis was performed, based on which a co-occurrence map of keywords related to the ESG field in cooperative banks was created. The VOSviewer software (version 1.6.20) was employed to develop the map. Additionally, an extra thesaurus file was prepared to eliminate duplicated terms with similar meanings (e.g., corporate social responsibility and CSR) or terms unrelated to the study (e.g., article, condition, research, analysis). This file was prepared based on a review of the publication collection.

## Results of the research

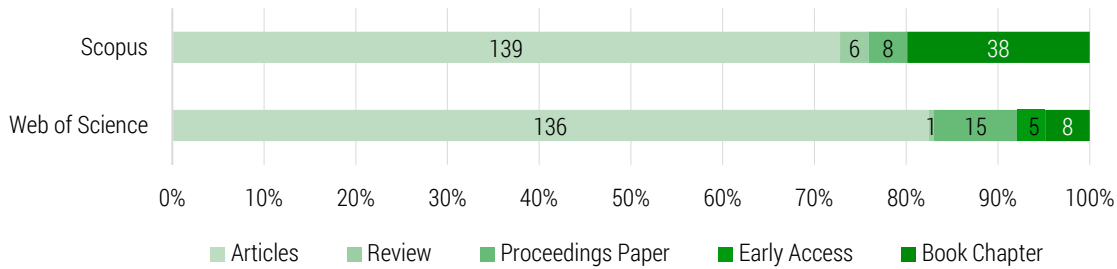
Between 2010 and 2024, a notable volume of publications surfaced in both databases (Figure 1). Interest in the subject commenced an accelerated ascent around 2022. The cumulative count of citations for publications registered within the Scopus database reached 2284, while in Web of Science, it reached 1841. There were 49 publications in Scopus and 29 in Web of Science that did not receive citations.

In the Web of Science and Scopus databases, the main form of publication was articles (representing 89.5% and 71.3%, respectively). In contrast, in the Scopus database, book chapters accounted for a significant part (19.5%). Conference papers, reviews and early access materials accounted for a marginal contribution. The distribution of publications based on document types is shown in Figure 2.



**Figure 1.** Number of publications in the field of ESG in cooperative banks in the Scopus and Web of Science databases (indexed from January 2010 to March 2024)

Source: authors' work based on the Scopus and Web of Science databases.



**Figure 2.** Type of documents of publications in the field of ESG in cooperative banks in the Scopus and Web of Science databases (indexed from January 2010 to March 2024)

Source: authors' work based on the Scopus and Web of Science databases.

In this examination, Migliorelli and Costa have emerged as the most productive authors, each contributing 7 publications. Regarding geographical dispersion, the bulk of the works emanate from Italy (51), with France (26) and the United Kingdom (26) trailing closely behind. In terms of institutional affiliations, the Università di Trento (13) and Université Paris 1 Panthéon-Sorbonne (11) have emerged as the foremost contributors. As for the journals with the highest output, the Annals of Public and Cooperative Economics occupies the premier position with 13 publications. This is followed by Contemporary Trends in European Cooperative Banking Sustainability Governance Digital Transformation and Health Crisis Response with 11 publications, and New Cooperative Banking in Europe: Strategies for Adapting the Business Model Post-Crisis securing 7 publications. A detailed enumeration of the most productive authors, institutions, countries, and journals within the domain of ESG in the banking sector is encapsulated in Table 3.

**Table 3.** The most productive authors, organisations, countries and journals

No.	Item	Number of publications	[%]
Authors			
1.	Migliorelli, M.	7	3.0
2.	Costa, E.	7	3.0
3.	Lamarque, E.	6	2.6
4.	Pesci, C.	5	2.2
5.	Catturani, I.	4	1.7
Countries			
1.	Italy	51	22.0
2.	France	26	11.2
3.	United Kingdom	26	11.2
4.	India	22	9.5
5.	Germany	17	7.3
Organisations			
1.	Università di Trento	13	5.6
2.	Université Paris 1 Panthéon-Sorbonne	11	4.7
3.	Prague University of Economics Business	5	2.2
4.	Università degli Studi di Salerno	5	2.2
5.	Università degli Studi della Campania Luigi Vanvitelli	5	2.2
Journals			
1.	Annals of Public and Cooperative Economics	13	5.6
2.	Contemporary Trends in European Cooperative Banking Sustainability Governance Digital Transformation and Health Crisis Response	11	4.7
3.	New Cooperative Banking in Europe Strategies for Adapting the Business Model Post Crisis	7	3.0
4.	Journal of Business Ethics	5	2.2
5.	Sustainability (Switzerland)	5	2.2

Note: [%] – percentage of the total 232 publications.

Source: authors' work based on the Scopus and Web of Science databases.

The total number of citations for works centred on ESG within the banking industry reached 1841, according to the Web of Science, and 2284, according to Scopus. Within the array of the ten most referenced studies, two appeared in the Journal of Business Ethics. The publication garnering the most citations, amassing 235 in Scopus and 212 in the Web of Science, was a 2015 piece by Köhler (2015) entitled “Which banks are more risky? The impact of business models on bank stability”. This was closely followed by a 2014 study by Fiordelisi and Mare, “Competition and financial stability in European cooperative banks”, and a 2018 investigation by Singh and Srivastava, “Predicting the intention to use mobile banking in India”, with their respective citation tallies in Scopus being 193 and 179, and in the Web of Science, 182 and 119 (Table 4).

Within the scope of the bibliometric analysis, keywords frequently associated with the theme of ESG in cooperative banks were extracted. This analytical procedure employed the VOSviewer software. The ensuing collection included 199 words or phrases that were mentioned at least five times across the keywords of the 232 articles reviewed.





## Discussion

The conducted bibliometric study confirmed the diversity of scientific areas – undertaken by researchers – related to the sustainability of cooperative banks. The results of the survey allow the identification of 13 clusters of research directions devoted to ESG performance in cooperative banks (Table 5).

**Table 5.** Research directions dedicated to ESG Performance in Cooperative Banks

No.	Category	Specification	Examples of research
1.	Strategy	business model	Migliorelli and Lamarque (2023); Groeneveld (2020); Meyer (2018)
		differences between commercial and cooperative banks	Kuc and Teply (2023); Jaeger et al. (2016); Köhler (2015)
		ESG and CSR	Zedda et al. (2024); Venanzi and Matteucci (2022); Bevilacqua (2022)
		development	Lamarque (2018)
		social capital	Oh and Yoon (2021); Catturani et al. (2016)
2.	Organization profile	form of business: cooperatives, joint stock companies	Beccalli et al. (2023); Arginelli (2023)
		one share – one vote system	Botta and Colombo (2020); Ferretti et al. (2019)
3.	Corporate governance	board	Ghosh and Ansari (2018); D'Amato and Gallo (2017); Boscia et al. (2015)
		business culture	Alińska and Szelągowska (2019); Minto (2016)
		organizational culture	Abawa and Obse (2024)
		reputation	De Nicola et al. (2021)
4.	Financial stability	resilience against the effects of crises	Karafolas and Kleanthous (2019); Manitiu and Pedrini (2017); Becchetti et al. (2016); Chiaramonte et al. (2015)
5.	Financial area	performance measurement	Vishnu et al. (2020); Manetti and Bagnoli (2013)
		profitability	Hanzlík and Teplý (2022); Ossola et al. (2016); Diaconu (2015)
		capital adequacy	Wang et al. (2022)
		efficiency	Ayadi et al. (2023); Algeri et al. (2021); San-Jose et al. (2018)
6.	Propensity to bank risk	risk management policy	Fiordelisi et al. (2022); Bénet et al. (2022); Clark et al. (2018)
		ESG risk and climate-related risk	Flögel et al. (2023); Caselli (2022)
		credit risk	Qi et al. (2022); Nitani and Legendre (2021); Golec (2018)
		operational risk	Gupta (2021)
7.	Environmental area	education of bank customers	Kuchciak and Wiktorowicz (2021)
		green products	Heinemann et al. (2018)
8.	Social area/ local communities	bridging social exclusion	Panakaje et al. (2023); Singh et al. (2022); Lal (2019)
		redressing regional imbalances	Moreno and Chaves Ávila (2021); Kovács (2018); Gautam (2017)
9.	Employment practices and decent work	employment practices in place	Piasecki (2020); Raj and Julius (2018); Suganthi and Senthilkumar (2015)
		diversity and equal opportunities	Ferraro and Cristiano (2022); Bossler and Schild (2016); Groeneveld (2011)
		employee training	Piasecki (2021)
10.	Customer relations	customer-advisor relationship	Monti et al. (2014)
		customer loyalty	Damberg et al. (2022); Aramburu and Pescador (2019)
11.	Communication with stakeholders	reporting	Veltri et al. (2023); Thomas and Marinangeli (2016)
		channels and forms of communication	Veg-Sala et al. (2022); Kozłowski and Kuchciak (2021);

No.	Category	Specification	Examples of research
12.	Other banking products and services	innovations	Bartolacci et al. (2022); Goglio and Catturani (2018)
		digitization	Srivastava et al. (2024); Meyer (2022)
		mobile banking	Singh and Srivastava (2020)
		sustainable financing	Flögel et al. (2023); Modina et al. (2023)
		sustainable investments and savings	Arnold et al. (2016); Cabo and Rebelo (2015)
13.	Compliance		Goglio and Stefancic (2022); Migliorelli (2018); Jovanovic et al. (2017)

Source: authors' work based on the Scopus and Web of Science databases.

The analysis carried out has shown that the subject of the study has not yet been explored extensively enough and that the number of articles on the issue is relatively small. Moreover, there is a noticeable dominance of articles on European cooperative banks and cooperative banks located in India. Some explanation for this phenomenon may be that most databases do not have information on cooperative banks from many countries in the world, and the range of data provided is insufficient from the point of view of ESG performance assessment. Research on cooperative banks requires the acquisition of hard-to-reach source data.

The bibliometric analysis of ESG performance in cooperative banks allowed the identification of a research gap, which is the lack of comprehensive studies dedicated to the comparative analysis of cooperative banks as well as commercial and investment banks. Individual studies tend to address only selected areas of ESG. It should also be noted that the results of the studies carried out do not give such clear-cut results on the ESG advantage of cooperative banks. Quite often, the results are inconclusive, and even cooperative banks perform worse in terms of engagement.

Furthermore, the analysis showed that in most cases, publications of a descriptive nature predominate. The authors mainly focus on the issue of implementing ESG-sensitive processes in cooperative banks and present case studies. A relatively large proportion of articles is also devoted to the implementation of good practices in the banking sector. Thus, the earlier conclusions by Riegler (2023) are confirmed, who observes that “the concept of sustainable banking is descriptive in nature and that generally applicable, clear-cut criteria catalogues are absent”.

Yet another noticeable research gap is the issue of measuring ESG performance. There are many attempts to quantify the assessment of this area, but these are methods that have very difficult results to compare. There is a lack of ESG scoring concepts dedicated strictly to cooperative banks covering all ESG pillars. It also seems that cooperative banks themselves have a problem with this, usually presenting only data where the bank has a track record or presents itself favourably in comparison to its competitors while omitting unfavourable results for the bank in other ESG areas. This seems to be a sort of greenwashing, i.e. a marketing strategy of misusing terms related to the local community, environmental protection, overstating environmental benefits or hiding negative environmental impacts.

The literature review conducted also indicates a lack of proposals for cooperative banks' specific measures of commitment to sustainability goals. In this context, one could imagine indicators illustrating, for example, the share in the portfolio of exposures financing investment projects in a particular region or sponsorship activities supporting the local community.

Cooperative banks are relatively small institutions compared to commercial banks. At the same time, the structure of their portfolios is dominated by the agricultural sector. For these reasons, as part of the descriptive research stream, one can expect to see a postulate of ESG causality specific to cooperative banks, as well as credit policies aimed at supporting green, sustainable agriculture with a systematically decreasing carbon footprint. For the time being, cooperative banks' ESG strategies are modelled on those of large commercial banks without paying special attention to localism and the important role of cooperative banks in financial inclusion (Nayak, 2012; Lu et al., 2022).

The performed analysis also has some limitations, which include, first and foremost, the methodology, which is based only on the Web of Science and Scopus databases. Although this is one of the broadest samples used so far in bibliometric analyses, covering the most highly cited journals, it does

not include a number of other studies that address the issue at hand. It therefore seems reasonable to repeat this study in the future, based on an expanded database.

## Conclusions

The conclusions formulated as a result of the analysis carried out in this article allow, on the one hand, the identification of the most important research streams related to ESG performance in the cooperative banks, and, on the other, the identification of 13 clusters of research directions dedicated to this issue.

The proposed solutions can be applied broadly, both as a decision-making support tool for future ESG business models and governance procedures in the banks themselves and to provide additional knowledge on the topic for other stakeholders, including bank supervisors and investors. The results obtained may, therefore, be useful for other stakeholder groups. The first of these includes academics, for whom our bibliometric analysis and systematisation of the literature on ESG in cooperative banks can be useful at the stage of selecting the research problem and assigning the literature review to it in order to ultimately pinpoint the research gap and formulate original research hypotheses. For this group of stakeholders, the methodology of this study may also be useful for an in-depth and structured literature review. The second group of recipients of the findings achieved are the authorities of cooperative banks (management and supervisory boards). The structuring of research results published in reputable academic journals can support decision-making processes and provide an opportunity to build a coherent ESG concept. The conclusions of our study are original and important in that we do not refer to a specific geographical area, method or period but on the basis of, among other things, citation rates and the number of publications focusing on a given issue and identify research directions that create space for further in-depth and interdisciplinary research.

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## The contribution of the authors

Conceptualization, Z.K., P.N., D.S. and A.d.T.; literature review, Z.K., P.N., D.S. and A.d.T.; methodology, Z.K., P.N., D.S. and A.d.T.; formal analysis, Z.K., P.N., D.S. and A.d.T.; writing, Z.K., P.N., D.S. and A.d.T.; conclusions and discussion, Z.K., P.N., D.S. and A.d.T.

The authors have read and agreed to the published version of the manuscript.

## References

- Abawa, A., & Obse, H. (2024). Organizational culture and organizational performance: does job satisfaction mediate the relationship? *Cogent Business & Management*, 11(1), 2324127. <https://doi.org/10.1080/23311975.2024.2324127>
- Agostino, M., Errico, L., Rondinella, S., & Trivieri, T. (2022). Do cooperative banks matter for new business creation? Evidence on Italian manufacturing industry. *Annals of Public and Cooperative Economics*, 93, 637-675. <https://doi.org/10.1111/apce.12342>
- Algeri, C., Forgione, A. F., & Mucciardi, M. (2021). Spatial dependence in small cooperative bank risk behavior and its effects on bank competitiveness and SMEs. *Applied Stochastic Models in Business and Industry*, 37(6), 1080-1096. <https://doi.org/10.1002/asmb.2637>
- Alińska, A., & Szelągowska, A. (2019). Corporate governance in the cooperative banking sector in Poland. Financial and credit activity problems of theory and practice, 1(28), 4-15. <http://dx.doi.org/10.18371/fcaptp.v1i28.163681>
- Aramburu, I. A., & Pescador, I. G. (2019). The Effects of Corporate Social Responsibility on Customer Loyalty: The Mediating Effect of Reputation in Cooperative Banks Versus Commercial Banks in the Basque Country. *Journal of Business Ethics*, 154(3), 701-719. <https://doi.org/10.1007/s10551-017-3438-1>

- Arginelli, P. (2023). Just a Brick in the Wall: Why Italy Is Violating Council Directive 2008/7/EC in the Pending Ente Cambiano Case. *European Taxation*, 63(7). <https://doi.org/10.59403/130d76a>
- Arnold, E. A., Größl, I., & Koziol, P. (2016). Market discipline across bank governance models: Empirical evidence from German depositors. *The Quarterly Review of Economics and Finance*, 61, 126-138. <https://doi.org/10.1016/j.qref.2015.12.002>
- Aschhoff, G. (1982). The Banking Principles of Hermann Schulze-Delitzsch and Friedrich Wilhelm Raiffeisen. In W. Engels & H. Pohl (Eds.), *German Yearbook on Business History 1982* (pp. 19-41). Berlin: Springer. [https://doi.org/10.1007/978-3-642-68792-1\\_2](https://doi.org/10.1007/978-3-642-68792-1_2)
- Ayadi, R., Challita, S., & Cucinelli, D. (2023). Cooperative banks, business models and efficiency: a stochastic frontier approach analysis. *Annals of Operations Research*. <https://doi.org/10.1007/s10479-023-05526-9>
- Ayadi, R., Llewellyn, D. T., Schmidt, R. H., Arbak, E., & De Groen, W. P. (2010). *Investigating diversity in the banking sector in Europe : key developments, performance and role of cooperative banks*. Brussels: Centre for European Policy Studies.
- Bartolacci, F., Cardoni, A., Łasak, P., & Sadkowski, W. (2022). An analytical framework for strategic alliance formation between a cooperative bank and a fintech start-up: An Italian case study. *Journal of Entrepreneurship, Management, and Innovation*, 18(4), 115-156. <https://doi.org/10.7341/20221844>
- Beccalli, E., Rossi, L., & Viola, A. (2023). Network vs integrated organizational structure of cooperative banks: Evidence on the Italian reform. *International Review of Financial Analysis*, 89, 102812. <https://doi.org/10.1016/j.irfa.2023.102812>
- Becchetti, L., Ciciretti, R., & Paolantonio, A. (2016). The cooperative bank difference before and after the global financial crisis. *Journal of International Money and Finance*, 69, 224-246. <https://doi.org/10.1016/j.jimonfin.2016.06.016>
- Bénet, N., Deville, A., & Ventolini, S. (2022). Decentralization of Decisions and Governance of Risk in Cooperative Contexts. In M. Migliorelli & E. Lamarque (Eds.), *Contemporary Trends in European Cooperative Banking* (pp. 97-117). Cham: Palgrave Macmillan. [https://doi.org/10.1007/978-3-030-98194-5\\_5](https://doi.org/10.1007/978-3-030-98194-5_5)
- Bernini, C., & Brighi, P. (2018). Bank Branches Expansion, Efficiency and Local Economic Growth. *Regional Studies*, 52(1), 1332-1345. <https://doi.org/10.1080/00343404.2017.1380304>
- Bevilacqua, E. (2022). European Cooperative Banks and Sustainability. In M. Migliorelli & E. Lamarque (Eds.), *Contemporary Trends in European Cooperative Banking* (pp. 165-192). Cham: Palgrave Macmillan. [https://doi.org/10.1007/978-3-030-98194-5\\_8](https://doi.org/10.1007/978-3-030-98194-5_8)
- Birchall, J. (2013). *Finance in an Age of Austerity: the Power of Customer-owned Banks*. Cheltenham: Edward Elgar.
- Boschia, V., Marchetti, P., & Stefanelli, V. (2015). The Value of Board Gender Diversity in Italian Cooperative Banks. *Journal of Governance & Regulations*, 4(3). [https://doi.org/10.22495/jgr\\_v4\\_i3\\_p5](https://doi.org/10.22495/jgr_v4_i3_p5)
- Bossler, M., & Schild, C.-J. (2016). The Employment Structure of Cooperative Banks – A Test of Institutional Hypotheses. *Annals of Public and Cooperative Economics*, 87(1), 79-92. <https://doi.org/10.1111/apce.12084>
- Botta, M., & Colombo, L. V. A. (2020). The value of voting rights in Italian cooperative banks: a quasi-natural experiment. *Managerial Finance*, 46(7), 861-882. <https://doi.org/10.1108/MF-07-2019-0341>
- Cabo, P., & Rebelo, J. (2015). Differences in Portuguese Credit Institutions' Lending and Investment Behaviour in a Time of Slump. *Annals of Public and Cooperative Economics*, 86(3), 445-463. <https://doi.org/10.1111/apce.12061>
- Caselli, G. (2022). How Do Cooperative Banks Consider Climate Risk and Climate Change? In M. Migliorelli & E. Lamarque (Eds.), *Contemporary Trends in European Cooperative Banking* (pp. 193-223). Cham: Palgrave Macmillan. [https://doi.org/10.1007/978-3-030-98194-5\\_9](https://doi.org/10.1007/978-3-030-98194-5_9)
- Catturani, I., Kalmi, P., & Stefani, M. L. (2016). Social Capital and Credit Cooperative Banks. *Economic Notes*, 45(2), 205-234. <https://doi.org/10.1111/ecno.12058>
- Chiaromonte, L., Poli, F., & Oriani, M. E. (2015). Are Cooperative Banks a Lever for Promoting Bank Stability? Evidence from the Recent Financial Crisis in OECD Countries. *European Financial Management*, 21(3), 491-523. <https://doi.org/10.1111/j.1468-036X.2013.12026.x>
- Clark, E., Mare, D. S., & Radić, N. (2018). Cooperative banks: What do we know about competition and risk preferences? *Journal of International Financial Markets, Institutions and Money*, 52, 90-101. <https://doi.org/10.1016/j.intfin.2017.09.008>
- Coccorese, P., & Shaffer, S. (2020). Cooperative banks and local economic growth. *Regional Studies*, 55(2), 307-321. <https://doi.org/10.1080/00343404.2020.1802003>
- Cornée, S., Fattobene, L., & Migliorelli, M. (2018). An Overview of Cooperative Banking in Europe. In M. Migliorelli (Ed.), *New Cooperative Banking in Europe. Strategies for Adapting the Business Model Post Crisis* (pp. 1-27). Cham: Palgrave Macmillan. [https://doi.org/10.1007/978-3-319-93578-2\\_1](https://doi.org/10.1007/978-3-319-93578-2_1)
- D'Amato, A., & Gallo, A. (2017). Does Bank Institutional Setting Affect Board Effectiveness? Evidence from Cooperative and Joint-Stock Banks. *Corporate Governance: An International Review*, 25(2), 78-99. <https://doi.org/10.1111/corg.12185>

- Damberg, S., Schwaiger, M., & Ringle, C. M. (2022). What's important for relationship management? The mediating roles of relational trust and satisfaction for loyalty of cooperative banks' customers. *Journal of Marketing Analytics*, 10, 3-18. <https://doi.org/10.1057/s41270-021-00147-2>
- de Nicola, M., Anees, U., & di Berardino, D. (2021). Building Relational Capital in Cooperative Banks of Italy: Role of Effective Communication, Relationship Age and Social Impacts. *Proceedings of the IEEE International Conference on Technology Management, Operations and Decisions (ICTMOD)*, Marrakech, Morocco, 1-5. <https://doi.org/10.1109/ICTMOD52902.2021.9739286>
- Diaconu, R.-I. (2015). Co-operative banks' profitability after 2008: Evidence from EU-27. *Proceedings of the International Conference Globalization, Intercultural Dialogue and National Identity*, Târgu-Mureş, 266-273. [https://www.researchgate.net/publication/344035907\\_Co-operative\\_banks'\\_profitability\\_after\\_2008\\_Evidence\\_from\\_EU-27](https://www.researchgate.net/publication/344035907_Co-operative_banks'_profitability_after_2008_Evidence_from_EU-27)
- EACB – European Association of Co-operative Banks. (2019). *Key Statistics at 31-12-22*. [https://v3.globalcube.net/clients/eacb/content/medias/key\\_figures/eacb\\_key\\_statistics\\_2022\\_-\\_published.pdf](https://v3.globalcube.net/clients/eacb/content/medias/key_figures/eacb_key_statistics_2022_-_published.pdf)
- EACB – European Association of Co-operative Banks. (2023). *EACB Annual Report 2022*. [https://v3.globalcube.net/clients/eacb/content/medias/publications/annual\\_reports/eacb\\_annualreport\\_2022\\_final-compressed.pdf](https://v3.globalcube.net/clients/eacb/content/medias/publications/annual_reports/eacb_annualreport_2022_final-compressed.pdf)
- El Hancha Sfar, F., & Ben Ouda, O. (2016). Contribution of Cooperative Banks to the Regional Economic Growth: Empirical Evidence from France. *International Journal of Economics and Financial Issues*, 6(2), 508-514. <https://www.econjournals.com/index.php/ijefi/article/view/1750>
- Engelhardt, W. W. (1990). Die Genossenschaftsidee als Gestaltungsprinzip. In J. Laurinkari & J. Brazda (Eds.), *Genossenschaftswesen: Hand- und Lehrbuch* (pp. 10-26). München, Wien: Oldenbourg Verlag GmbH. <https://doi.org/10.1515/9783486783322-003>
- Ferraro, O., & Cristiano, E. (2022). Investigating the Quality of Gender Equality Non-Financial Information Disclosed in the Cooperative Credit Sector: A Case Study. *Journal of Risk and Financial Management*, 15(12), 595. <https://doi.org/10.3390/jrfm15120595>
- Ferretti, R., Pattitoni, P., & Castelli, A. (2019). Security-voting structure and equity financing in the banking sector: 'one head-one vote' versus 'one share-one vote'. *Journal of Management and Governance*, 23, 1063-1097. <https://doi.org/10.1007/s10997-019-09451-7>
- Fiordelisi, F., Grimaldi, S., Lopez, J. S., Mazzilis, M. C., & Ricci, O. (2022). The beauty of being involved: The case of cooperative banks. *British Journal of Management*, 34(4), 2290-2311. <https://doi.org/10.1111/1467-8551.12698>
- Fiorelisi, F., & Mare, D. S. (2014). Competition and financial stability in European cooperative banks. *Journal of International Money and Finance*, 45(C), 1-16. <https://doi.org/10.1016/j.jimonfin.2014.02.008>
- Flögel, F., Schepelmann, P., Zademach, H. M., & Zörner, M. (2023). Injecting climate finance into SME lending in Germany: Opportunities for and limitations of regional savings and cooperative Banks. *ZFW – Advances in Economic Geography*. <https://doi.org/10.1515/zfw-2022-0011>
- Gautam, V. (2017). Appraisal of Retail Lending in DCCBs Based on Loans, NPAs, and Diversification. *Indian Journal of Finance*, 11(2), 35. <http://dx.doi.org/10.17010/ijf%2F2017%2Fv11i2%2F110233>
- Ghosh, S., & Ansari, J. (2018). Board characteristics and financial performance: Evidence from Indian cooperative banks. *Journal of Co-operative Organization and Management*, 6(2), 86-93. <https://doi.org/10.1016/j.jcom.2018.06.005>
- Giagnocavo, C., Gerez, S., & Sforzi, J. (2012). Cooperative Bank Strategies for Social-Economic Problem Solving: Supporting Social Enterprise and Local Development. *Annals of Public and Cooperative Economics*, 83(3), 281-315. <https://doi.org/10.1111/j.1467-8292.2012.00464.x>
- Goglio, S., & Catturani, I. (2018). The Way Forward for Cooperative Banks. In M. Migliorelli (Ed.), *New Cooperative Banking in Europe* (pp. 183-200). Cham: Palgrave Macmillan. [https://doi.org/10.1007/978-3-319-93578-2\\_8](https://doi.org/10.1007/978-3-319-93578-2_8)
- Goglio, S., & Stefancic, M. (2022). Cooperative Banks and EU Regulation: A General Assessment. In M. Migliorelli & E. Lamarque (Eds.), *Contemporary Trends in European Cooperative Banking* (pp. 55-73). Cham: Palgrave Macmillan. [https://doi.org/10.1007/978-3-030-98194-5\\_3](https://doi.org/10.1007/978-3-030-98194-5_3)
- Golec, M. M. (2018). Cooperative Banks' Social Responsibility: the Lending Activities of a Group of Cooperative Banks in Poland. *Forum Scientiae Oeconomia*, 6(3), 41-52. <http://yadda.icm.edu.pl/yadda/element/bwmeta1.element.ekon-element-000171526891>
- Groeneveld, H. (2020). Reconciling different truths about isomorphic pressure and distinctive behavior at European cooperative banks: Back to the future with Raiffeisen's principles. *Annals of Public and Cooperative Economics*, 91(3), 359-385. <https://doi.org/10.1111/apce.12280>
- Groeneveld, J. M. (2011). Title: Morality and Integrity in Cooperative Banking. *Ethical Perspectives*, 18(4), 515-540. <http://dx.doi.org/10.2143/EP.18.4.2141846>
- Gupta, A. (2021). The Devil's Laugh at Corporate Governance: The Case of Punjab and Maharashtra Co-operative Bank (PMC Bank) India. *Indian Journal of Corporate Governance*, 14(2), 248-267. <https://doi.org/10.1177/09746862211047315>
- Hakenes, H., Hasan, I., Molyneux, P., Xie, R. (2015). Small Banks and Local Economic Development. *Review of Finance*, 19(2), 653-683. <https://doi.org/10.1093/rof/rfu003>

- Hanzlík, P., & Teplý, P. (2022). Key factors of the net interest margin of European and US banks in a low interest rate environment. *International Journal of Finance & Economics*, 27(3), 2795-2818. <https://doi.org/10.1002/ijfe.2299>
- Hasan, I., Jackowicz, K., Kowalewski O., & Kozłowski, Ł. (2019). The Economic Impact of Changes in the Local Bank Presence. *Regional Studies*, 53(5), 644-656. <https://doi.org/10.1080/00343404.2018.1475729>.
- Hasan, I., Jackowicz, K., Kowalewski O., & Kozłowski, Ł. (2017). Do Local Banking Market Structures Matter for SME Financing and Performance? New Evidence from an Emerging Economy. *Journal of Banking and Finance*, 79(C), 142-158. <https://doi.org/10.1016/j.jbankfin.2017.03.009>.
- Heinemann, K., Zwergel, B., Gold, S., Seuring, S., & Klein, C. (2018). Exploring the Supply-Demand-Discrepancy of Sustainable Financial Products in Germany from a Financial Advisor's Point of View. *Sustainability*, 10(4), 944. <https://doi.org/10.3390/su10040944>
- Jaeger, M., Lemzeri, Y., & Ory, J.-N. (2016). Cooperative versus Conventional (Joint-Stock) Banking In Europe: Comparative Resistance And Resilience During The Recent Financial Crisis. *Journal of Applied Business Research*, 32(5), 1341-1362. <https://doi.org/10.19030/jabr.v32i5.9764>
- Jovanović, T., Arnold, C., & Voigt, K.-I. (2017). Cooperative banks in need of transition: The influence of Basel III on the business model of German cooperative credit institutions. *Journal of Co-operative Organization and Management*, 5(1), 39-47. <https://doi.org/10.1016/j.jcom.2017.03.003>
- Karafolas, S., & Kleanthous, A. (2019). Crisis' consequences on recapitalization and exposure for Cypriot and Greek cooperative banks. *CIRIEC-España, Revista de Economía Pública, Social y Cooperativa*, 96, 5-27. <https://doi.org/10.7203/CIRIEC-E.96.12974>
- Köhler, M. (2015). Which banks are more risky? The impact of business models on bank stability. *Journal of Financial Stability*, 16, 195-212. <https://doi.org/10.1016/j.jfs.2014.02.005>
- Kovács, S. Z. (2018). Dualities of the Hungarian credit institute activities. *DETUROPE: The Central European Journal of Regional Development and Tourism*, 10(3), 108-119. <https://www.deturope.eu/pdfs/det/2018/03/08.pdf>
- Kozłowski, Ł., & Kuchciak, I. (2021). Small local banks in social media: converting social responsibility into consumer attention and economic outcomes. *Journal of Business Economics and Management*, 22(4), 958-987. <https://doi.org/10.3846/jbem.2021.14721>
- Kuc, M., & Teplý, P. (2023). Are European commercial banks more profitable than cooperative banks? Evidence from a low interest rate environment. *International Journal of Finance & Economics*, 28(4), 4385-4400. <https://doi.org/10.1002/ijfe.2656>
- Kuchciak, I., & Wiktorowicz, J. (2021). Empowering Financial Education by Banks—Social Media as a Modern Channel. *Journal of Risk and Financial Management*, 14(3), 118. <https://doi.org/10.3390/jrfm14030118>
- Lal, T. (2019). Measuring impact of financial inclusion on rural development through cooperatives. *International Journal of Social Economics*, 46(3), 352-376. <https://doi.org/10.1108/IJSE-02-2018-0057>
- Lamarque, E. (2018). The Governance of Cooperative Banks: Main Features and New Challenges. In M. Migliorelli (Ed.), *New Cooperative Banking in Europe* (pp. 141-161). Cham: Palgrave Macmillan. [https://doi.org/10.1007/978-3-319-93578-2\\_6](https://doi.org/10.1007/978-3-319-93578-2_6)
- Lang, F., Signore, S., & Gvetadze, S. (2016). *The role of cooperative banks and smaller institutions for the financing of SMEs and small midcaps in Europe*. [https://www.eif.org/news\\_centre/publications/eif\\_wp\\_36.pdf](https://www.eif.org/news_centre/publications/eif_wp_36.pdf)
- Lu, Z., Wu, J., Li, H., & Nguyen, D. K. (2022). Local Bank, Digital Financial Inclusion and SME Financing Constraints: Empirical Evidence from China. *Emerging Markets Finance and Trade*, 58(6), 1712-1725. <https://doi.org/10.1080/1540496X.2021.1923477>
- Manetti, G., & Bagnoli, L. (2013). Mutual and Social Efficiency of Italian Co-operative Banks: An Empirical Analysis. *Annals of Public and Cooperative Economics*, 84(3), 289-308. <https://doi.org/10.1111/apce.12015>
- Manitiu, D. N., & Pedrini, G. (2017). The countercyclical role of Italian local banks during the financial crisis. *Applied Economics*, 49(27), 2679-2696. <https://doi.org/10.1080/00036846.2016.1245840>
- Meyer, E. (2018). The New Economic Scenario and Its Impact on the Cooperative Banking Business Model. In M. Migliorelli (Ed.), *New Cooperative Banking in Europe* (pp. 29-45). Cham: Palgrave Macmillan. [https://doi.org/10.1007/978-3-319-93578-2\\_2](https://doi.org/10.1007/978-3-319-93578-2_2)
- Meyer, E. (2022). Profitability and Digitalisation: The Effects on Cooperative Banks and Their Governance. In M. Migliorelli & E. Lamarque (Eds.), *Contemporary Trends in European Cooperative Banking* (pp. 225-242). Cham: Palgrave Macmillan. [https://doi.org/10.1007/978-3-030-98194-5\\_10](https://doi.org/10.1007/978-3-030-98194-5_10)
- Migliorelli, M. (2018). Cooperative Banks and Banking Regulation in the EU: Key Elements. In M. Migliorelli (Eds.), *New Cooperative Banking in Europe* (pp. 87-101). Cham: Palgrave Macmillan. [https://doi.org/10.1007/978-3-319-93578-2\\_4](https://doi.org/10.1007/978-3-319-93578-2_4)
- Migliorelli, M., & Lamarque, E. (Eds.). (2023). *Contemporary Trends in European Cooperative Banking. Sustainability, Governance, Digital Transformation, and Health Crisis Response*. Cham: Palgrave Macmillan.
- Minto, A. (2016). The spirit of the law over its letter: the role of culture and social norms in shielding cooperative banks from systemic shocks. *Law and Financial Markets Review*, 10(1), 16-26. <https://doi.org/10.1080/17521440.2016.1154298>

- Modina, M., Curcio, D., & Formisano, A. V. (2023). Mutuality in the credit business of the banking enterprise: the cooperative credit survey. *Sinergie Italian Journal of Management*, 41(3), 151-169. <http://dx.doi.org/10.7433/s122.2023.07>
- Monti, M., Pelligra, V., Martignon, L., & Berg, N. (2014). Retail investors and financial advisors: New evidence on trust and advice taking heuristics. *Journal of Business Research*, 67(8), 1749-1757. <https://doi.org/10.1016/j.jbusres.2014.02.022>
- Moreno, J. F. A., & Chaves Ávila, R. (2021). Banking structure and income inequality. Cooperative banking makes a difference. *CIRIEC-España, Revista de Economía Pública, Social y Cooperativa*, 102, 197-227. <http://dx.doi.org/10.7203/CIRIEC-E.102.19382>
- Nayak, R. K. (2012). *Financial Inclusion through Cooperative Banks: A Feasible Option for Inclusive Growth*. <https://www.semanticscholar.org/paper/Financial-Inclusion-through-Cooperative-Banks%3A-A-Nayak/bca1d7e3dd5d241233acb43f92ab76cbab2b2e8c>
- Nitani, M., & Legendre, N. (2021). Cooperative lenders and the performance of small business loans. *Journal of Banking & Finance*, 128, 106125. <https://doi.org/10.1016/j.jbankfin.2021.106125>
- Oh, F. D., & Yoon, H. (2021). Social Capital and Firm Innovation: Evidence from Cooperative Banking in Korea. *Asia-Pacific Journal of Financial Studies*, 50(2), 147-175. <https://doi.org/10.1111/ajfs.12333>
- Ossola, G., Giovando, G., & Crovini, C. (2016). Risk Management and Corporate Governance. Model of the Italian Credit Cooperative Banks. *Proceedings of the Annual Conference of the EuroMed Academy of Business, Innovation, Entrepreneurship and Digital Ecosystems*, Warsaw, Poland, 1388-1402. <https://emrbi.org/wp-content/uploads/2016/08/euromed2016bof.pdf>
- Panakaje, N., Rahiman, H. U., Riha Parvin, S. M., Siddiq, A., & Rabbani, M. R. (2023). Revitalising socio-economic empowerment through cooperative banks: insights from India. *Arab Gulf Journal of Scientific Research*. <https://doi.org/10.1108/AGJSR-05-2023-0188>
- Piasecki, P. (2020). Dimensions of HR differentiation: The effect on job satisfaction, affective commitment and turnover intentions. *Baltic Journal of Management*, 15(1), 21-41. <https://doi.org/10.1108/BJM-05-2019-0178>
- Piasecki, P. (2021). The influence of employee membership on training intensity: The case of Polish co-operative banks. *Journal of Co-operative Organization and Management*, 9(2), 100144. <https://doi.org/10.1016/j.jcom.2021.100144>
- Poli, F. (2019). *Co-operative Banking Networks in Europe: Models and Performance*. Springer Nature.
- Qi, J., Eberhardt-Toth, E., & Paulet, E. (2022). Determinants of Environmental Credit Risk Management: Empirical Evidence from European Banks. In K.T. Çalyurt (Ed.), *New Approaches to CSR, Sustainability and Accountability* (pp. 17-36). Singapore: Springer. [https://doi.org/10.1007/978-981-16-9364-9\\_3](https://doi.org/10.1007/978-981-16-9364-9_3)
- Raj, A. E. A., & Julius, S. (2018). Causes and Consequences of Work Stress and Coping Behaviour of Employees: An Analysis. *Indian Journal of Management*, 11(3), 24-38. <http://dx.doi.org/10.17010/pijom/2018/v11i3/122075>
- Riegler, M. (2023). Towards a definition of sustainable banking – a consolidated approach in the context of guidelines and strategies. *International Journal of Corporate Social Responsibility*, 8(5), 1-26. <https://doi.org/10.1186/s40991-023-00078-4>
- San-Jose, L., Retolaza, J. L., & Gutierrez-Goiria, J. (2011). Are Ethical Banks Different? A Comparative Analysis Using the Radical Affinity Index. *Journal of Business Ethics*, 100, 151-173. <https://doi.org/10.1007/s10551-011-0774-4>
- San-Jose, L., Retolaza, J. L., & Lamarque, E. (2018). The Social Efficiency for Sustainability: European Cooperative Banking Analysis. *Sustainability*, 10(9), 3271. <https://doi.org/10.3390/su10093271>
- Singh, S., & Srivastava, R. K. (2018). Predicting the intention to use mobile banking in India. *International Journal of Bank Marketing*, 36(2), 357-378. <https://doi.org/10.1108/IJBM-12-2016-0186>
- Singh, S., & Srivastava, R. K. (2020). Understanding the intention to use mobile banking by existing online banking customers: an empirical study. *Journal of Financial Services Marketing*, 25, 86-96. <https://doi.org/10.1057/s41264-020-00074-w>
- Singh, S., Gautam, R. S., Agarwal, B., Pushp, A., Barge, P., & Rastogi, S. (2022). Impacts of Financial Inclusion on Sustainable Development in India. *The Journal of Asian Finance, Economics and Business*, 9(10), 235-242. <https://doi.org/10.13106/jafeb.2022.vol9.no10.0235>
- Srivastava, R., Bagdi, S. K., & Gulati, A. (2024). Framework for the Adoption of Digital Transformation – A Study on the Banking and Financial Services Industry in India. In Ch. So In, N.D. Londhe, N. Bhatt & M. Kitsing (Eds.), *Information Systems for Intelligent Systems* (pp. 1-12). Singapore: Springer. [https://doi.org/10.1007/978-981-99-8612-5\\_1](https://doi.org/10.1007/978-981-99-8612-5_1)
- Suganthi, S., & Senthilkumar, C. B. (2015). A study on stress management of the staff of the co operative banks of Tamil Nadu, India. *International Journal of Pharmacy and Technology*, 6(4), 7529-7533.
- Thomas, A., & Marinangeli, B. (2016). Social reporting and voluntary disclosure in Italian Credit Cooperative Banks. *International Journal of Disclosure and Governance*, 13, 178-194. <https://doi.org/10.1057/jdg.2015.13>
- Veg-Sala, N., Zeitoun, V., & Michel, G. (2022). How Do Cooperative Banks Build Their Own Proximity Type in the Social Media. In M. Migliorelli & E. Lamarque (Eds.), *Contemporary Trends in European Cooperative Banking* (pp. 243-265). Cham: Palgrave Macmillan. [https://doi.org/10.1007/978-3-030-98194-5\\_11](https://doi.org/10.1007/978-3-030-98194-5_11)

- Veltri, S., Cristiano, E., & Ferraro, O. (2023). Examining the quality of the consolidated mandatory non-financial statements of a cooperative banking group: A longitudinal analysis. *Corporate Social Responsibility and Environmental Management*, 30(4), 1573-1587. <https://doi.org/10.1002/csr.2436>
- Venanzi, D., & Matteucci, P. (2022). The largest cooperative banks in Continental Europe: a sustainable model of banking. *International Journal of Sustainable Development & World Ecology*, 29(1), 84-97. <https://doi.org/10.1080/13504509.2021.1919784>
- Vishnu, M. S., Selvanayaki, S., Devi, M. N., & Rohini, A. (2020). Financial performance analysis of the selected cooperative banks in Kerala. *Indian Journal of Economics and Development*, 16(3), 473-477. <http://dx.doi.org/10.35716/IJED/20003>
- Wang, J., Chen, H., Zhang, H., Luo, J., Cheng, M., & Zhang, J. (2022). Property rights reform and capital adequacy ratios of rural credit cooperatives in China. *Economic Modelling*, 106, 105707. <https://doi.org/10.1016/j.econmod.2021.105707>
- Waupsh, J. (2017). *Bankruptcy: How Community Banking Can Survive Fintech*. Hoboken: John Wiley & Sons.
- Weber, O. (2011). *Mission and Profitability of Social Banks*. SSRN. <http://dx.doi.org/10.2139/ssrn.1957637>
- Zedda, S., Modina, M., & Gallucci, C. (2024). Cooperative credit banks and sustainability: Towards a social credit scoring. *Research in International Business and Finance*, 68, 102186. <https://doi.org/10.1016/j.ribaf.2023.102186>

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Zbigniew KORZEB • Paweł NIEDZIÓŁKA • Danuta SZPILKO • Antonio de la TORRE

## ANALIZA BIBLIOMETRYCZNA DOKONAŃ BANKÓW SPÓŁDZIELCZYCH W OBSZARZE ESG. AKTUALNY STAN WIEDZY I PRZYSZŁE KIERUNKI BADAŃ

**STRESZCZENIE:** Celem artykułu jest usystematyzowanie badań nad działaniami z obszaru ESG w bankach spółdzielczych, a także stworzenie tematycznych klastrów kierunków badań poświęconych wynikom ESG. Badanie opiera się na analizie bibliometrycznej artykułów z baz Scopus i Web of Science w okresie od 2010 do marca 2024 roku. Wyniki pozwalają na identyfikację 13 klastrów kierunków badań poświęconych ESG. Idea badania jest uzasadniona znaczeniem zrównoważonej bankowości i potrzebą usystematyzowania wiedzy na temat praktyk ESG w bankach spółdzielczych oraz zidentyfikowania obszarów, w których niezbędne są pogłębione badania. Oryginalność naszego podejścia polega na tym, że nie odnosimy się do konkretnego obszaru geograficznego, metody i okresu, ale na podstawie wskaźników cytowań i liczby publikacji koncentrujących się na danym zagadnieniu, identyfikujemy kierunki badań, które tworzą przestrzeń do dalszych pogłębionych badań.

**SŁOWA KLUCZOWE:** banki spółdzielcze, ESG, analiza bibliometryczna