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Leveraging on cultural and creative industries to foster social innovation: A bibliometric analysis

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ABSTRACT

This study investigated the interplay between community-based cultural initiatives conducted by Cultural and Creative Industries (CCIs) and social innovation. Selecting peer-reviewed open-access articles that focus on the intersection of culture and innovation was the first step in our systematic literature review. Our analysis focused on the 76 most cited papers that included the keywords 'community-led local development', 'social innovation', and 'cultural and creative industries'. The literature review revealed that CCIs can significantly promote social innovation through cultural engagement, particularly when they collaborate with various stakeholders. However, researchers differ in their emphasis on the nature of collaboration. Some argue that partnerships with businesses or academic institutions are essential for creating 'heterogeneous sources of knowledge' (HSK). Others contend that collaboration between government entities and local authorities is vital for fostering regional and local development. The third perspective introduces the notion of 'entrepreneurial co-creation', suggesting that CCIs work alongside stakeholders with technical and managerial expertise. Finally, there is a consensus that CCIs need to acquire new leadership skills and competencies to ensure sustainability and resilience. By synthesising these four perspectives, this study offers a comprehensive framework that positions CCIs at the core of a broader economic, territorial, managerial, and political context.

Introduction

The primary aim of social innovation is to positively influence a community and enhance individuals' quality of life (Lombardi et al., 2020; Fava, 2022; Zhang et al., 2024). Furthermore, innovation is recognised as a critical component in fostering sustainable development systems that promote a balance between economic growth and the safeguarding of 'public goods', such as biodiversity and other environmental resources (Di Simone et al., 2022; Meng et al., 2023; Chaparro-Banegas et al., 2024; Dabbous et al., 2024). Arising from citizen initiatives, social innovation is arguably the most effective means of regenerating local communities and encouraging citizen participation in urban dynamics, leading to advancements in economic, sustainable, and, importantly, cultural progress (Mangialardo & Micelli, 2020; AnthonyJnr, 2024). Culture is instrumental in preserving and promoting the cultural and linguistic diversity of Europe. It facilitates the transmission of knowledge and values and fosters social cohesion (Gustafsson & Lazzaro, 2021). In this context, culture protects Europe's tangible and intangible heritage for both the present and future generations, enhancing community cohesion, the quality of human relationships, trust, cooperation, and a sense of territorial identity (Gravagnuolo et al., 2021; Mittal & Woodside, 2022; Iaione et al., 2022). This emphasis on local identity is crucial for preserving the cultural specificities of regions and their heritage and establishing a strong link between creative processes and supportive policies that enhance authenticity (Engh et al., 2021). Concurrently, the cultural sector contributes significantly to the European Union (EU) economy through employment, investment, growth, and social innovation (Sica, 2022). Thus, the protection and enhancement of cultural heritage has emerged as a fundamental political priority in Europe, necessitating the formulation of future policies (Shirvani Dastgerdi & Kheyroddin, 2022). To achieve this, there is an increasing need for new, innovative, and fully participatory approaches that are people-centred and that collaborate with other stakeholders (Lee & Trimi, 2018; Snis et al., 2021). The implementation of the Faro Convention has spurred the growth of grassroots civic initiatives aimed at protecting cultural resources as well as their sustainable and identity-based valorisation. Following this, the strategic direction set by the European Parliament (2021) and the Next Generation EU has

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identified economic, social, and territorial cohesion as a primary mission, even preceding 'green' and 'digital' objectives (Commission, 2021). To address these challenges, the role of cultural and territorial resources, alongside that of the cultural industry, emerges at vital social, political, and economic levels.

Despite the increasing capacity of the EU to initiate relevant actions in the cultural sector in recent years, there remains a notable absence of structured cultural industrial policies. Thus far, initiatives have primarily taken the form of funding directed at networks of cultural organisations and institutions (Lähdesmäki et al., 2021; McNamara, 2023; Marullo et al., 2024). However, the European vision must encompass all territorial dimensions and activities related to investment, particularly in the realms of territorial development policies, innovation, and external relations (Crociata et al., 2024). There is a pressing need for a new approach to cultural administration that not only acknowledges the cultural cross-cutting impact on various sectors but also recognises the increasing significance of cities in redefining public investment in regeneration processes. As this analysis illustrates, our perceptions of culture and creativity are evolving, and this shift must be acknowledged at multiple levels within society (Bandarin, 2019). Cultural policies should develop a profound understanding of society and individuals' emerging needs rather than merely focusing on managing the arts, promoting cultural heritage abroad, and ensuring the survival and resilience of art in today's consumer-driven society (O'Connor, 2022). The reliance on public funding and patronage poses additional challenges that must be addressed. To this end, inclusive principles and processes regarding the access, representation, and participation of citizens must be prioritised (Cáceres-Feria et al., 2021). It is essential to seek innovative solutions, support new development models, create opportunities for younger generations, and bridge the gap between developed and marginalised urban areas. The aspiration to humanise society through culture-sensitive strategies can only be realised by prioritising cultural diversity to foster dialogue and enhance understanding among different cultures (Castellani, 2019). This goal aligns with the objectives of Cultural and Creative Industries (CCIs) and the social innovation practices they promote. Although various definitions exist, CCIs represent a range of economic activities capable of generating new ideas and jobs, often through intellectual property (Cicerone et al., 2020). Moreover, CCIs leverage behavioural economics to examine the psychological, cognitive, emotional, and social factors that influence decision-making processes among individuals and groups, which may diverge from classical economic theories (Solimine & Zanchini, 2020; Al-Omoush et al., 2022). Cultural economics must transcend the limitations of traditional economic choice frameworks to incorporate new psychological insights such as bounded rationality and cognitive psychology (Denti et al., 2022). Consequently, behavioural economics serves as a valuable tool that CCIs employ to integrate art and culture into the economy and predict cultural economic behaviours.

The primary objective of CCIs is to utilise, create, modify, promote, or sell cultural, artistic, and historical content, as well as items related to education and management (Santoro et al., 2020; Sokół et al., 2023). Thus, CCIs serve as crucial drivers of cultural innovation and, by extension, facilitate social innovation (Gerlitz & Prause, 2021; Gustafsson & Lazzaro, 2021). Although the relationship between social innovation and community-based cultural projects can be identified, this area remains relatively new and is rapidly emerging within the research landscape (Romanelli & Zbuchea, 2020). This study addressed the existing research gap by understanding the role of CCIs in fostering social innovation. Specifically, we stressed that, despite an agreement on the importance of CCIs for social innovation, the effective dynamics of the collaborations necessary for these industries to have a positive social impact remain underexplored. This study conducted a systematic literature review aimed at assessing and establishing the current status of research on culture and social innovation with a particular focus on CCIs. Few studies have examined the interconnection dynamics between CCIs and other sectors. For instance, Casey and O'Brien (2020) investigated the link between CCIs and sociology, while Salvador and Benghozi (2023) focused on the relationship between CCIs and public policy. However, a framework that integrates CCIs within a broader context encompassing economic, territorial, managerial, and political growth is still lacking. This study aimed to address this gap by contributing to the knowledge base through a comprehensive and comprehensive approach. This is the only way to progress and investigate the long-term effects of collaborative strategies for CCIs, particularly considering the rapid transformations in this emerging sector.

Our systematic literature review focused on cultural innovation papers with a strong social and community-based emphasis. We addressed the following research questions (RQs):

1. What are the most relevant topics in papers addressing culture and social innovation?
2. Which journals are the most relevant and frequently cited for these topics?
3. How has this field evolved over the past 15 years?
4. Which authors, countries, and organisations are most significant in this domain?
5. What prominent themes are closely related to CCIs and, more broadly, to cultural and social innovation? How do these themes interrelate?

This approach enables us to gain insights into the emerging themes within the literature that are likely to shape future research as well as to identify the main challenges that researchers encounter.

The remainder of this paper is organised as follows: We begin by outlining the structure of the systematic review, detailing how we identified and screened relevant papers, and how we constructed the final sample for analysis. We then examine the evolution of the research field over time, highlighting its significant growth over the last decade. Subsequently, we focus on the most relevant authors, topics, and journals, selecting 76 papers for detailed analysis. Finally, we identify four recurring themes and develop a theoretical framework that positions CCIs within a broader multidisciplinary context for economic, political, and territorial growth.

This study makes three significant contributions to this field. First, we present a rigorous and reproducible review of the literature on culture and social innovation beginning in 2009, when the number of papers published annually became significant. Based on this review, we identified the key contributors (authors and countries), the most cited and frequently chosen journals, and the principal themes, issues, and methodologies. Finally, we contextualised the main results and conclusions of these 76 papers, creating a comprehensive interdisciplinary framework that can guide future research efforts.

Methods

This study conducted a systematic literature review using a bibliometric approach. This is a rigorous and detailed scientific method that reduces researcher bias by critically analysing and evaluating existing studies in a specific field, thereby improving the quality of the overall research (Cuccurullo et al., 2016; Lyu et al., 2022; Obreja et al., 2024; Yang et al., 2024). In this study, bibliometric techniques were used to analyse academic work on socially based cultural innovation, management, and the economics of innovation (Kraus et al., 2022; Wang et al., 2022). The main aim was to identify specific macro themes related to certain strands of literature, both well-known and less-known, as well as temporal trends that are very useful in delineating evolutionary dynamics (Dada, 2018). The ultimate goal was to identify thematically congruent studies that are sufficiently significant and objective to provide a nonbiased understanding of the topic under analysis.

Furthermore, as in other bibliometric studies (Martínez-Climent et al., 2018; Baima et al., 2021; Idrees et al., 2023; Dzhunushalieva & Teuber, 2024), a content analysis of the most influential articles was

conducted to investigate the thematic evolution of the discipline.

The main structure of our systematic review is shown in the flowchart in Fig. 1, which lists the phases and number of entries retrieved from the database at each stage.

Although a more detailed description of each phase is provided in the following sections, we highlighted the main phases of the flow from the initial search to the final selection.

The systematic review was structured in three phases:

- Identification

The starting point of the systematic review was a search for relevant articles in the Web of Science (WoS) database. A standard procedure for systematic literature reviews was followed using a two-step approach (Silva et al., 2023; Rodrigues et al., 2024). First, we selected the main topic 'cultural+innovation', retrieving only papers in which the two concepts intersect. We further limited the number of papers by adding ad hoc keywords to increase the number of papers, but limited it to only open-access and refereed papers published in English, as shown in the right corner of the top block in the figure. From an initial number of entries (with the right keywords) of 3942, a total of 3273 articles were selected after this first filtering.

- Screening

Based on the WoS archive, only papers belonging to specific categories and research areas were retained in this step, as highlighted in the second block of the figure. It was then decided to focus only on the sustainability goals most relevant to the current research and to the highest-ranked journals. After the screening, 302 articles were retrieved.

- Analysis

In this phase, the 302 selected papers were analysed using the software 'Bibliometrix' (Aria & Cuccurullo, 2017) and 'VOSviewer' (Van Eck & Waltman, 2017). The latter software was instrumental in

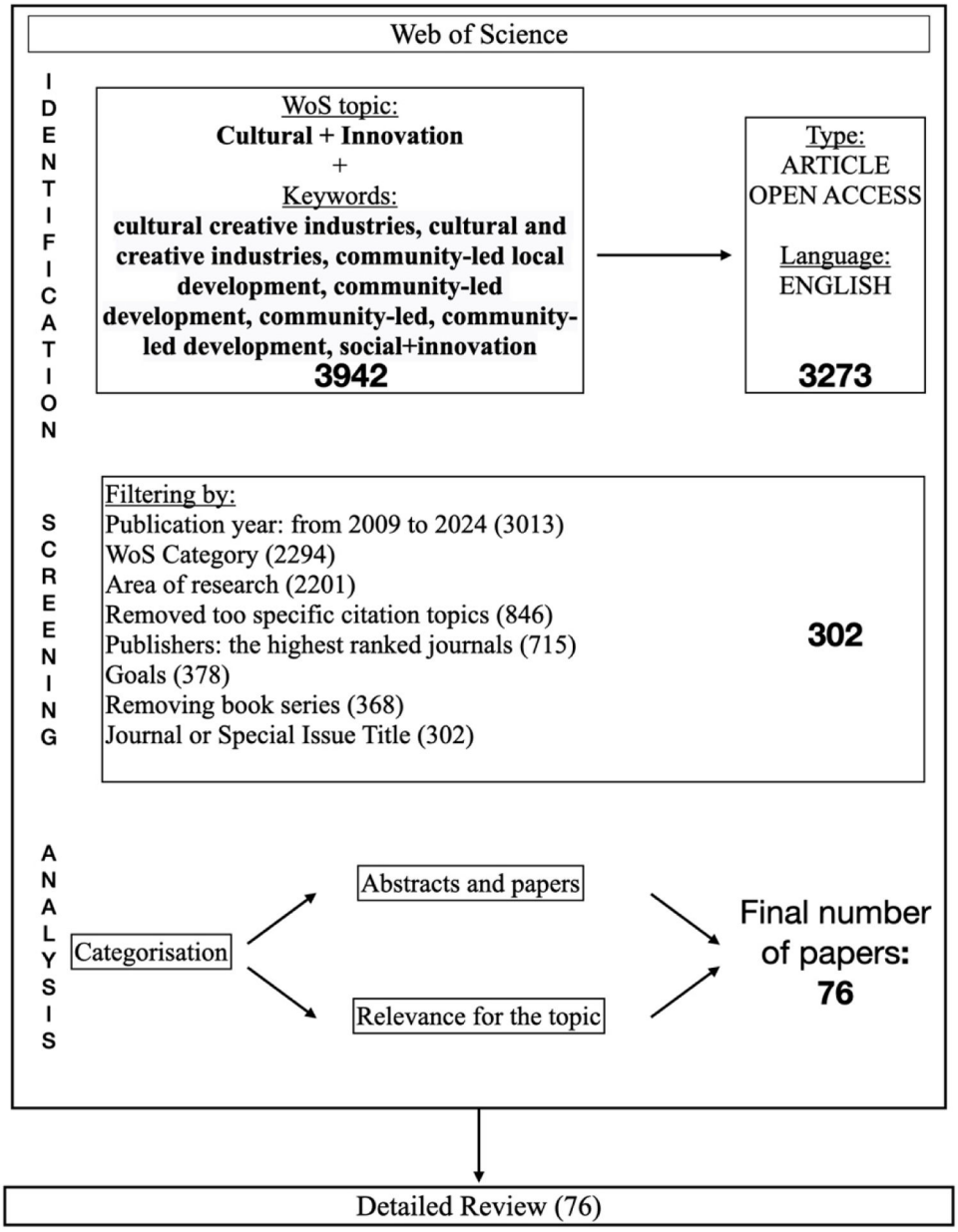

Fig. 1. Schematic view of the structure of the systematic literature review. Source: Authors' elaboration.

analysing the selected papers because of its ability to handle large bibliographic datasets directly downloaded from WoS and to provide quantitative insights into research trends. This made it possible to identify the articles with the greatest impact in terms of citations and link strengths, and to group them by authors, journals, co-occurrences, countries, institutions, and so on. Moreover, the web-interface of 'Bibliometrix' ('biblioshiny') allowed us to obtain a visualisation of the results and to build networks and topic maps, as well as to study the time evolution of the main themes.

The analysis allowed us to carry out further 'qualitative' screening of articles, keeping the 76 articles that have had the greatest impact on the field of research in the last 10 years.

At the end of these three steps, the final sample consisted of 76 publications from 35 journals written by 183 authors. On average, each paper had on average 14.35 citations. Of these 76, 19 were single-author papers.

Initial sample and keywords

The core collection of WoS, comprising >15,000 journals and 50 million articles, was chosen as the database, following the approach presented in Merigó et al. (2015) and Nunen et al. (2018). We are aware of the existence of many other databases (e.g. Scopus, Econ Lit. EBSCO, and Google Scholar); however, we decided to limit ourselves to WoS, which has the largest number of papers relevant to cultural and social innovation. WoS is also recognised as one of the most comprehensive databases of peer-reviewed journals in the social sciences, only containing content that is approved and considered relevant (Hicks & Wang, 2011; Scaringella & Radziwon, 2018).

From the database containing all and only contributions from which the necessary metadata (e.g., authors, countries, references, or number of citations) can be extracted (Carvalho et al., 2013), we launched a query using the 'Topic' field. In this case, WoS only returned articles corresponding to the searched strings if they were contained in the title, abstract, author keywords, and keywords plus. The chosen topic was '*cultural+innovation*'. Note the use of the Boolean operator '+' to select only articles where these two single words are associated. This query returned 617 contributions. Subsequently, a keyword query string was used to interrogate the database for contributions at the intersection of three thematic strands: those that intercept the concept of 'innovation' in its environmental, economic, and social aspects. To retrieve the largest number of entries at this stage, we applied a very conservative keyword search with a Boolean 'OR', allowing for a comprehensive combination of expressions around three main concepts: i) *Community-Led Local Development*, ii) *Social Innovation*, and iii) *Cultural and Creative Industries*. In detail, we queried the database, adding the following keywords: 'cultural creative industries', 'cultural and creative industries', 'community-led local development', 'community-led development', 'community-led', 'community-led development', and 'social+innovation' (Xiao & Watson, 2017).

The results and statistics in this study were driven by this choice; however, different choices would produce only slightly different numbers of input entries retrieved from the database (Gusenbauer & Haddaway, 2019). This was motivated by the fact that we wished to retrieve all papers dealing with community-based bottom-up approaches to social innovation through culture. This is because we aimed to investigate the role of CCIs in this process and whether they are driving motors for social innovation.

In this preliminary phase, excessive narrowing of the field was avoided by inserting specific keywords. A total of 3942 works were identified in these three thematic strands.

Exclusion criteria

From the 3942 papers in the initial sample, we limited our search to contributions classified as 'articles', written in English and open access (Basson, 2019; Yan & Zhiping, 2023). Hence, the total number of results was reduced to only referenced academic contributions, thus excluding non-referenced publications that appear in conference proceedings, which may not follow a rigorous scientific editorial approach (Xiao & Watson, 2017; Bickley et al., 2022). Book chapters and whole books were not selected for analysis as they did not follow the same referee process as papers; however, this filtering only removed 10 entries. After excluding them, 3273 articles remained.

Screening phase

Having selected a large number of publications on cultural innovation, in this second phase, screening and further selection were performed based on timeframe, research category and areas, and on quality and impact, as described below.

Publication timeline

A histogram of the number of publications per year retrieved from WoS is shown in Fig. 2. This showed that the number had been steadily increasing over the last 10 years, although it was previously statistically insignificant. Hence, the years of publication of academic and research articles were limited to 2009–2024, as before this period, the number of articles was <10. In summary, the period considered in this literature review covered 15 full years, starting when the number of papers published per year was greater than 10 and up to the maximum of the histogram: over 450 papers per year in 2022 and 2023.

Timeframe screening retained 3013 of the 3273 papers selected to date

Category and research area

WoS allows one to select articles catalogued according to their macro-category (e.g. management, business, and economics), micro-category (e.g. knowledge management, corporate social responsibility, and sharing economy), and the research area on which the paper focuses the most (e.g. Social Science, Environmental Science, and Urban Studies).

By selecting only relevant categories and areas, we filtered 2201 papers.

Quality screening

To further focus on the topics of the final sample of articles and simultaneously select the papers with the highest impact for analysis, additional quality screenings were carried out.

First, the selection was limited to the highest-ranked journals and to only the goals of relevance for the analysis (e.g. zero hunger or water cleaning were removed from the selection). Furthermore, the titles of the journals and Special Issues in which the contributions were published were assessed and selected based on their relevance to the selected topic.

Analysis

A sample of 302 papers, written by a total of 774 authors, were exported from the database and analysed with the 'VOSviewer' software, as its capabilities are particularly effective for mapping collaborations between authors and institutions. For these papers, we explored quantitative bibliometric parameters such as the number of citations, relevance and scientific impact of journals, and geographical concentration of leading authors and journals. This is critical for understanding the influence of individual work, journals, and researchers in the fields of cultural and social innovation.

Citation analysis

In this section, we used citations as a proxy for impact to highlight the contributions and journals that shape the research landscape the most (Aria & Cuccurullo, 2017).

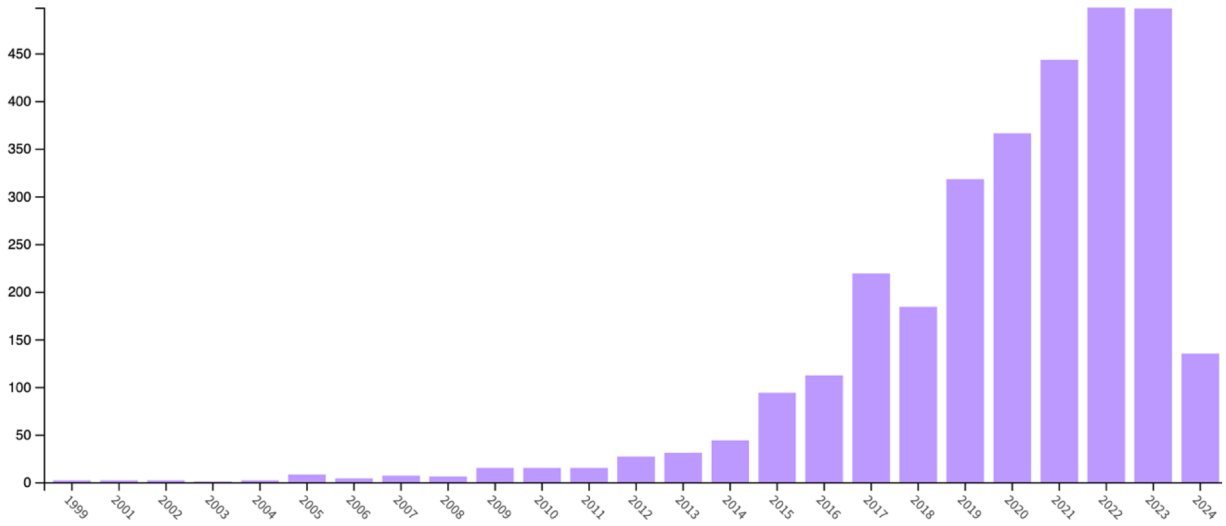

Fig. 2. Histogram of the number of publications per year. Source: Web of Science.

Fig. 3 shows a paper map (top) and journal bibliometric map (bottom), highlighting the links between them. This figure was created with the 'VOSviewer' software using papers ('documents', top) and journals ('sources', bottom) as the unit of the analysis. In the top panel, we imposed a threshold on the minimum number of citations equal to 10. We used the same normalisation as in the LinLog layout and modularity clustering techniques described by Newman (2003) and Noack (2007). This visualisation allows us to identify some of the most cited (largest circles) papers, such as Boons et al. (2013) with 1204 citations. Because the citation counts are neither normalised nor limited to the sector under analysis, a one-to-one correlation cannot be drawn between the total number of citations and their impact in the field. Nevertheless, some of the most cited papers are very recent (e.g., Carayannis and Morawska-Jancelewicz, 2022; Mackinnon et al., 2022; Santoro et al., 2020). The analysis also revealed clusters of papers interconnected with each other through collaborations between research groups and authors with significant impact in the field (grey connecting lines, with a minimum strength of five citations).

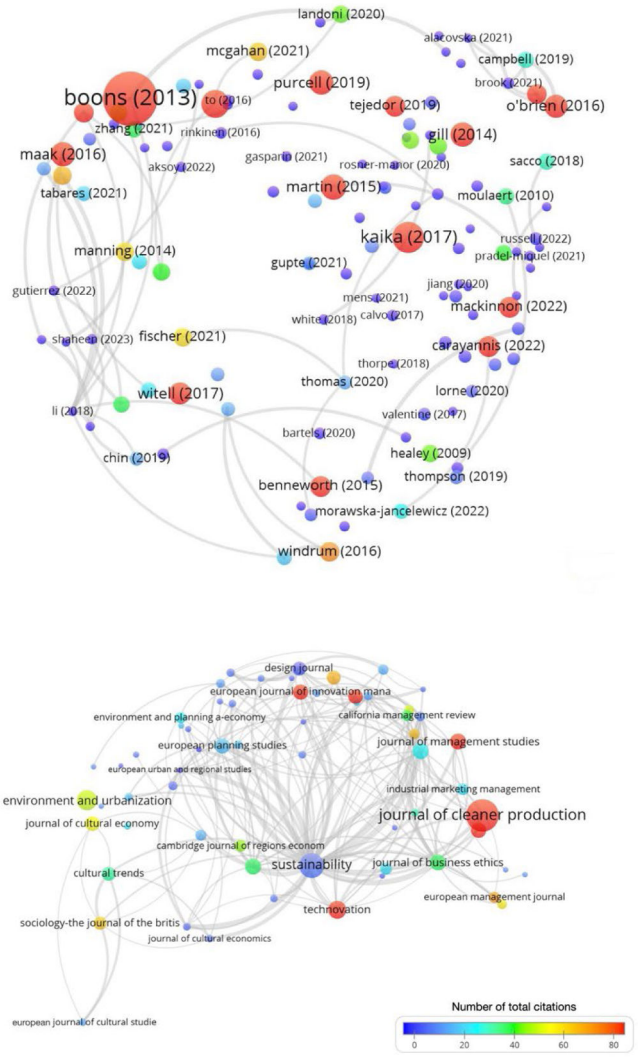

Fig. 3. Bibliometric coupling of papers (top) and journals (bottom), colour-coded and size-coded by the total number of citations. Source: Authors' analysis using WoS data with VOSviewer.

The network of journals shown in the bottom panel of the same figure was produced without any threshold for the number of citations, retrieving all 93 journals in which 302 articles were published. The colour and size coding are the same as those in the upper panel. The panel revealed an unexpected result: the journals with the largest number of published papers did not coincide with the journals in which the most impactful papers were published. In particular, when ordering the journals per number of documents, two of them stood out from the distribution: 'Sustainability' (with 73 of the 302 papers) and 'Design Journal' (with 27 publications). However, these two journals were not ranked at the top in terms of number of citations. Instead, 'Journal of Cleaner Production' (with 1271 total citations over four papers), 'Technovation' (with 252 citations across three papers) and 'Journal of Management Studies" (with 191 citations across two papers), had a clear predominance. We furthermore noted that the three journals that published the most cited papers were all listed in the Academic Journal Guide (2018, ABS list), hence ensuring their reasonable quality level, while 'Sustainability' and 'Design journal' were not. We speculated a possible reason for the fact that the most cited journals were not the most commonly used ones in the Discussion section.

Authors' network

Second, the authors were grouped as shown in Fig. 4, where the font size of the author names in each cluster was a function of the impact (in terms of the total number of citations, as before) in the field. Nine groups of authors (i.e. collaborations) stood out. However, we noted that a citation of the same paper could count for more than one author in the

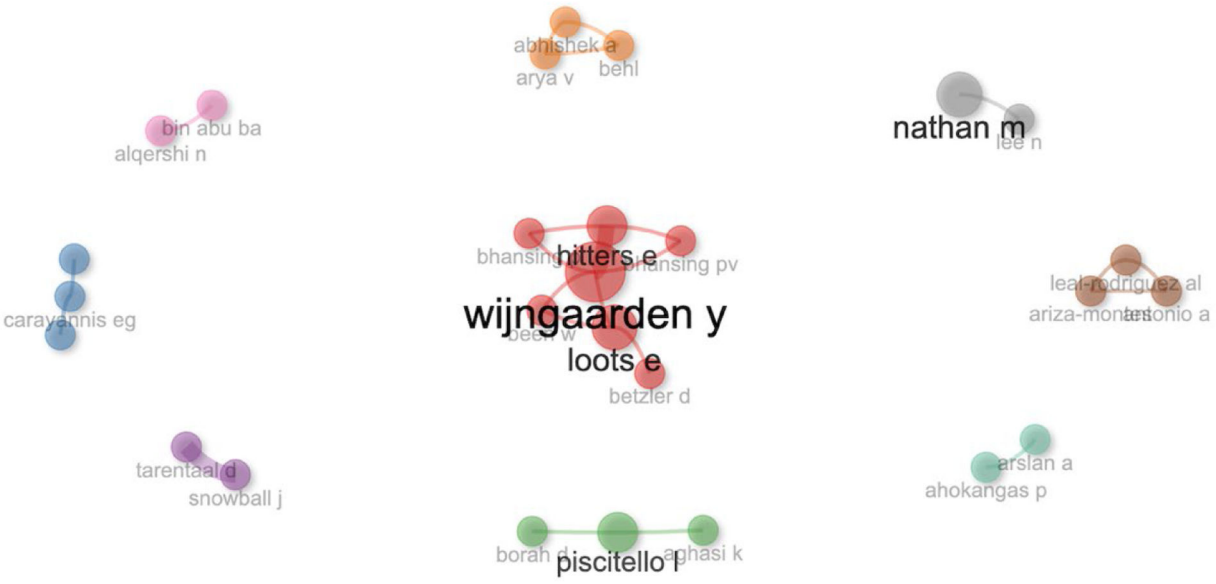

Fig. 4. Grouping of authors. The size of the name is coded according to the number of citations. Source: Authors' analysis using WoS data with Bibliometrix. Visualisation on Biblioshiny.

case of co-authorship. There were three most impactful authors in the field, according to this analysis: Wijngaarden Y., Nathan M., and Piscitello I. Interestingly, they did not belong to the same collaboration. Loots E., who belonged to Wijngaarden's collaboration, also had a fairly large impact on the field. However, we stressed once again that this was the cumulative number of citations for the total number of published papers, both as leading authors and co-authors.

Final sample

Analysing the statistics obtained from the 302 selected papers with VOSviewer, it was decided to further limit the sample of papers, as the most cited and representative ones did not always perfectly fit with the main interest of this research. In particular, the main factors considered in this phase of the final screening were the closeness and relevance of the covered topics. Indeed, the main goal was to build a manageable representative sample of articles dealing with cultural innovation while exploring all aspects of this from an environmental, economic, and social point of view. Hence, the abstracts of the 302 papers were carefully assessed to select only the relevant ones, without considering citations, leading authors, or any other quantitative statistical index previously analysed.

This qualitative in-depth categorisation phase allowed us to build a final sample of 76 papers, which will be analysed in detail in the following section.

Bibliometric analysis on the final sample

In this section, the selected sample of 76 papers dealing with cultural innovation was analysed, both through the use of the specific software already used in the previous sections and manually by reading the abstracts and the papers themselves and then drawing conclusions on their contents.

Table 1 presents a general overview of the final sample of 76 papers. A detailed analysis of corresponding papers, authors, and journals is presented in the following paragraphs. Statistics were then used to group the selected papers based on the methods they use and/or the issues they mainly deal with.

Table 1
Main characteristics of the final sample of 76 papers. Source: Authors' elaboration.

Description	Results
Timespan	2012–2024
Sources (Journal, Books, etc.)	35
Documents	76
Annual Growth Rate %	14.35
Document Average Age	3.3
Average citations per doc	14.47
References	4929
DOCUMENTS CONTENTS	
Keywords Plus (ID)	242
Author's keywords (DE)	369
AUTHORS	
Authors	183
Authors of a single-authored docs	19
AUTHORS COLLABORATION	
Single-authored docs	19
Co-authors per doc	2.62

Citations

This section focuses on the number of citations of the selected 76 publications restricted to the field of social innovation with a cultural imprint. Table 2 lists the ten articles (documents) with the highest number of citations to understand their contribution to the field of each

Table 2
The ten most cited papers. Source: Authors' elaboration.

Document	Citations	Mean citations per year
Santoro et al. (2020)	195	48.75
Gill (2014)	142	14.2
Carayannis and Morawska-Jancelewicz (2022)	91	45.5
Mackinnon et al. (2022)	89	44.5
Andres and Chapain (2013)	52	4.72
Landoni et al. (2020)	52	13
De Silva and Wright (2019)	50	10
Sacco et al. (2018)	43	7.17
Campbell et al. (2019)	42	8.4
Suriyankietkaew et al. (2022)	37	18.5

individual paper. We note that, strictly statistically, the number of citations should be weighted by the publication year. However, interestingly, the majority of the papers (seven out of ten) are relatively recent. Only two contributions have been published for more than ten years; the most cited one is dated 2020, and three published in 2022 are also mentioned. This hints at the rapidly growing interest in this field in recent years. We caution the readers that the citations were not re-normalised by the number of co-authors; however, we also note that none of the papers had more than six authors, and eight out of ten had three or fewer co-authors.

The third column in Table 2 lists the number of citations divided by the number of years since publication (up to 2024). This normalisation highlights emerging papers that have received a moderate or high number of citations in a very short period. For instance, Santoro et al. (2020), Carayannis and Morawska-Jancelewicz (2022), and MacKinnon et al. (2022), with a mean citation number per year greater than 44, had much more potential than other papers with a higher total number of citations but accumulated over a longer period of time.

To study the correlations between the various authors in more detail and thus have an idea of the collaborations (including international ones), we produced a network visualisation plot, as shown in Fig. 5. Each symbol corresponds to a single document published by one or more authors (hence, a name can appear multiple times in the plot if an author has published several papers in the field). The entries are colour-coded and size-coded by the number of citations, as reported on the bottom-right scale.

Arrows show the link strengths between authors (e.g. cross-citations or co-authored papers).

A few large collaborations (e.g. Santoro, Papa, Bresciani) and a number of smaller sub-clusters can be identified in the figure. The largest cluster comprised four Italian authors. This indicated Italy's high productivity in this field, as discussed in the next section.

Geographical distribution

Fig. 6 shows the paper production divided by country. Publications were classified based on the affiliations of the leading author and mainly included developed and emerging economies. The histogram in the figure shows the cumulative number of papers produced by each country, whereas the density map visualises the density of production by country, with darker blue indicating higher productivity over time.

This geographical classification clearly showed that the majority of studies came from Europe, specifically England and Italy, which made the greatest contribution to the field, with 24 and 21 papers, respectively. They were followed by China, Poland, Spain, the USA, Germany, and the Netherlands. The University of London and Polytechnic of Milano were among the most active affiliations in the field. We speculated that this is because the field is relatively new and is in a steep developmental phase. Hence, within the two most relevant countries, the most active research centres were big and famous.

England and Italy had the largest number of citations. However, Thailand, the United States, and Scotland performed better when computing the mean citation count per paper (dividing the total citations by the number of papers). This was visible in Table 3, which shows the ten countries with the highest number of total citations, number of papers, and mean citation count per paper.

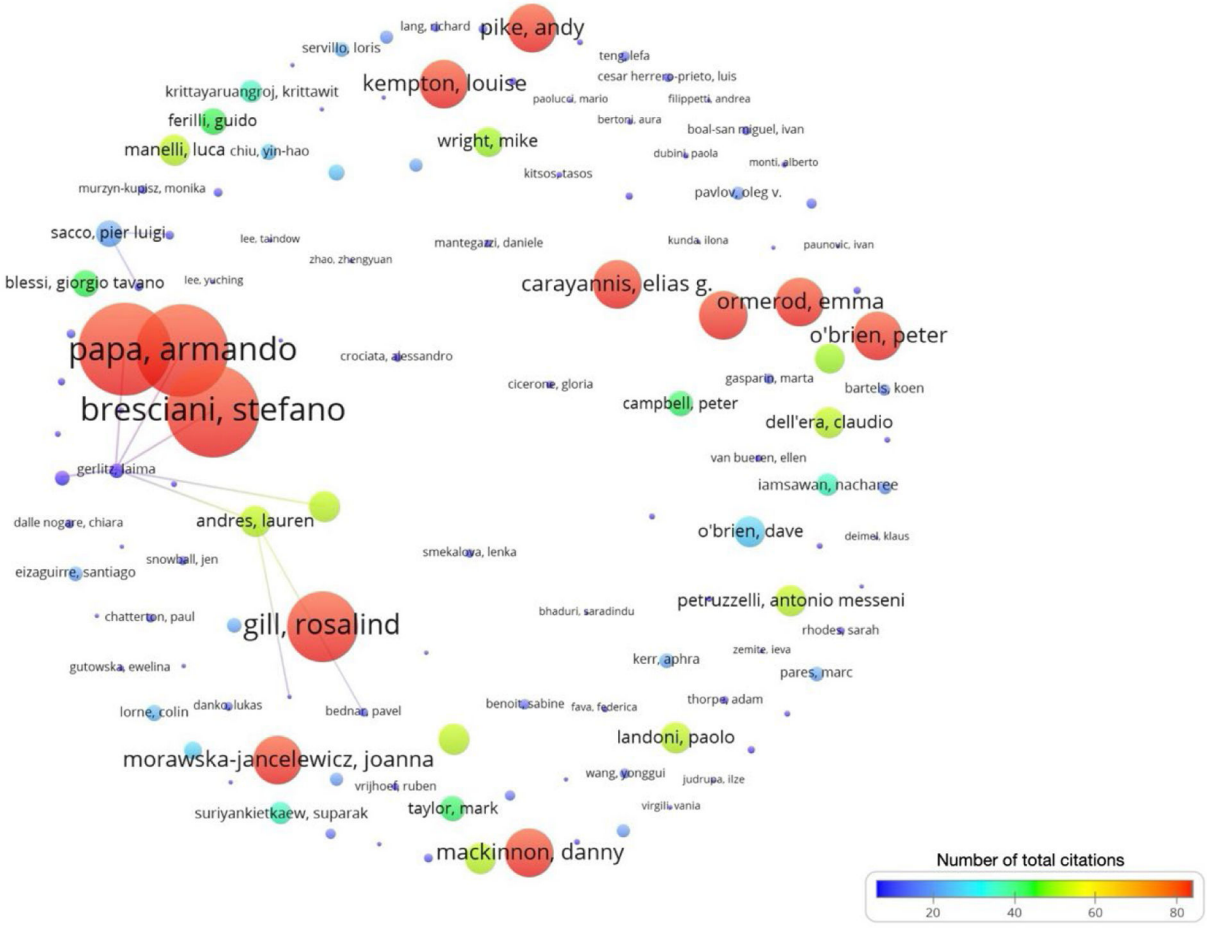

Fig. 5. Network visualisation plot. The colour scale and the size of the circles show the number of citations for each single paper, as in previous figures. Authors' analysis using WoS data with VOSviewer.

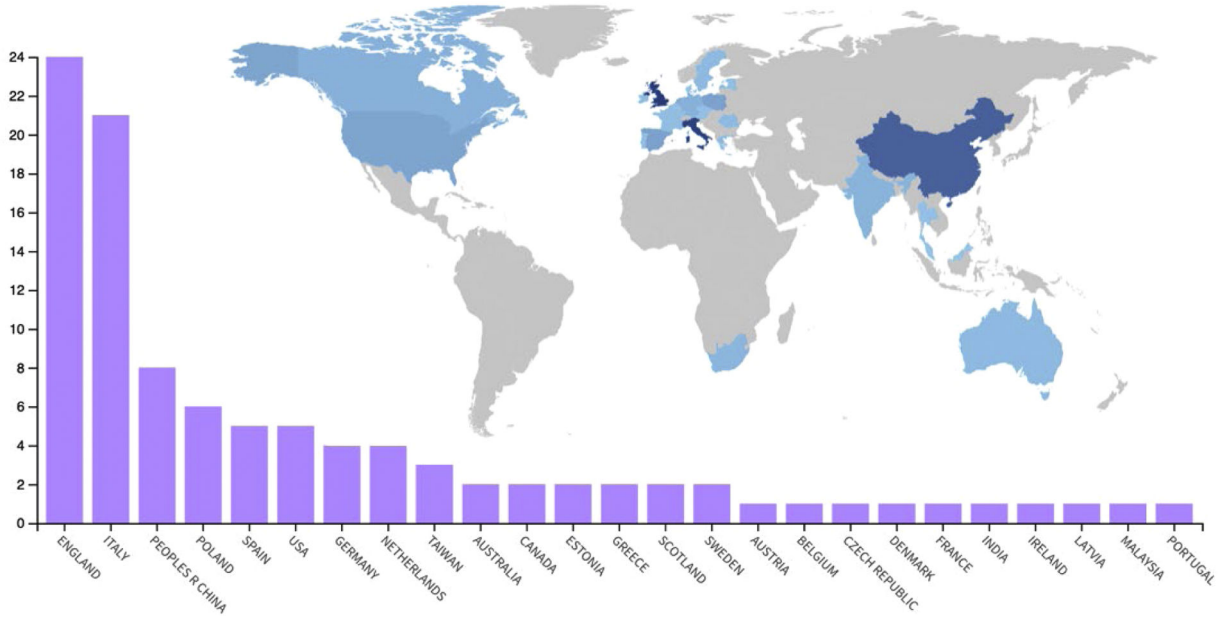

Fig. 6. Papers' production per country. The histogram plots the number of papers published by each country, which are colour-coded in the world density map with darker blue corresponding to a larger number of papers. Source: Authors' analysis using WoS data with Bibliometrix. Visualisation Biblioshiny.

Table 3
The most productive countries. Source: Authors' elaboration.

Country	Total citations	Number of papers	Mean citations per paper
England	590	24	24.6
Italy	381	21	18.1
USA	156	5	31.2
Poland	129	6	21.5
Spain	61	5	12.2
Scotland	53	2	26.5
Thailand	37	1	37
Taiwan	31	3	10.3
Germany	29	4	7.25
China	27	8	3.38

Fig. 7 shows the collaboration network connecting the countries of the leading authors of the 76 papers. It should be noted that the United Kingdom incorporated England and Scotland. Strong collaborations existed among the most productive countries. Thailand was the only isolated country that stood out, with a single publication receiving 37 citations (Suriyankietkaew et al., 2022)

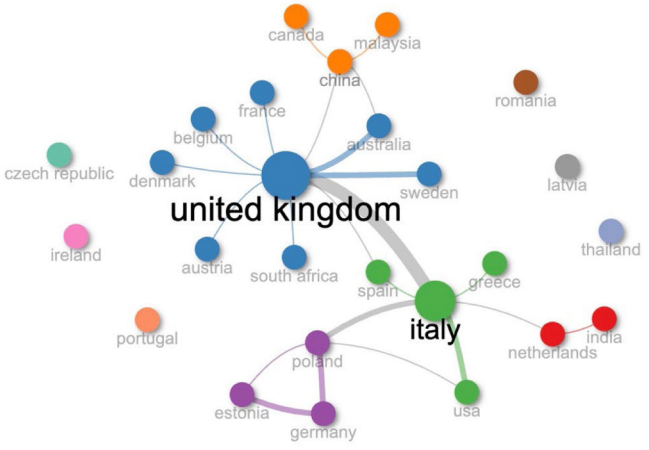

Fig. 7. Country network showing collaborations between the country of the leading authors of the 76 papers in our sample. Source: Authors' analysis using WoS data with Bibliometrix. Visualisation Biblioshiny.

Publication timeline

Although we considered papers from 2009 onwards, the oldest publication in the final sample of 76 papers was dated 2012. This further demonstrates that we are currently working in a relatively new field of research.

The summary in Table 1 shows that the number of articles increased at an annual rate of 14.35 %. This is most likely due to the increased interest and awareness of managers and academics in socially based cultural innovation and the presence of more community-led projects. It is also likely that the European strategy (2014–2020) for creativity and innovation and the presence of increased funding in the UK following Brexit (which appear to be the two main sources of research funding and projects) also had an impact. The graph in Fig. 8 shows that the annual number of articles published from 2012 to 2018 remained almost constant, but then increased monotonically to a total of 15 between 2021 and 2022. The decline after 2023 was not statistically significant as 2024 is still in progress.

Finally, we noted that the time evolution of the original sample with 302 papers described in Section 2.4 was qualitatively similar to that of the 76 papers shown here, but showed some significant differences. In particular, while in both cases, the first steep increase in the number of publications occurred in 2016 for the larger sample, the number of papers per year remained stable (around 35 publications) until 2020, and then rose again. For the restricted sample plotted in Fig. 8, the growth monotonically increased. We speculate that this might reflect the fact that since 2018, the field of CCIs has started to emerge at a multidisciplinary level, especially in connection with social innovation. This connection may be due to the increasing attention of European and international policies towards the role of CCIs in promoting sustainable development and social inclusion (Kalfas et al., 2024).

Journal distribution

The categorisation in Table 4 illustrates the number of articles presented in different leading academic journals, ordered by the cumulative

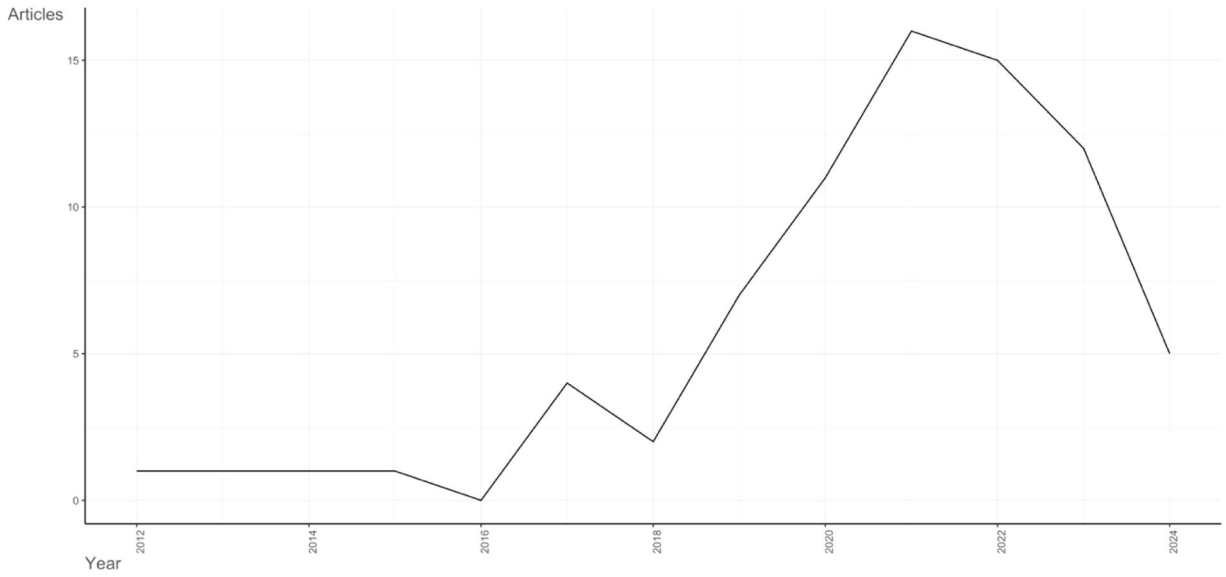

Fig. 8. Time evolution of the scientific production for the sample of 76 papers from 2012 to 2024. Source: Authors' analysis using WoS data with Bibliometrix. Visualisation: Biblioshiny.

Table 4
Most cited journals, ordered by citation counts. Source: Authors' elaboration.

Source	Total number of papers	Citations
Technovation	3	252
Sustainability	27	239
Journal of Cultural Economy	2	151
Journal of the Knowledge Economy	1	91
Cambridge Journal of Regions Economy	1	89
European Planning Studies	1	56
Regional Studies	1	52
R&D Management	1	50
Sociology- The British Journal	1	42
Urban Research & Practice	1	35

number of citations (total for all published papers in that particular journal). Many of these studies seemed interested in themes and issues related to cultural innovation. Here, we note that the journal with the largest number of papers (27 documents) was undoubtedly 'Sustainability', which was not the case for the analysis of the 302 papers. However, as in the previous case, but less dramatically, this journal did not have an excessive number of citations. Indeed, for example, 'Technovation', while having only three articles among the 76 analysed, was superior in terms of the cumulative number of citations. Hence, authors dealing with topics related to culture and social innovation generally preferred 'Sustainability'. However, the table shows that there were few papers published in different journals, not as common as the former, which had a larger impact in the field in terms of the number of citations (e.g. a single paper in the Journal of the Knowledge Economy totalled 91 citations). In the Discussion section, we speculate on the possible reasons for the discrepancy between the most cited papers and those most commonly chosen.

Fig. 9 shows the journal network, highlighting once again the fact that Sustainability was the most commonly chosen journal for these topics, but it was not the one that published the most cited and therefore most impactful articles.

Research methodologies

Most of the 76 papers used a qualitative approach for the analysis. In detail, 65 % (49 papers) of the sample exploited only qualitative methods, such as context analysis (18 %), semi-structured interviews (22 %), ethnographic observation (10 %), and case study analysis (15 %). In contrast, 35 % (27 papers) used quantitative methodologies, such as surveys (20 %), statistical analyses (10 %), and econometric analyses (5 %). Finally, the remaining 10 % (eight papers) employed mixed-methods. These numbers are summarised in Table 5.

Main topics

Fig. 10 shows a thematic map of the topics treated by the papers selected in this study, built analysing the 20 most used keywords and grouping them to have a minimum frequency of 40 for each document with the software 'Biblioshiny' (Aria & Cuccurullo, 2017). We used the 'Walkmap' clustering algorithm (Pons & Latapy, 2005), which is based on a hierarchical agglomerative clustering process. Although this algorithm is not suitable for very large datasets because it is slower than the others, it has several advantages, such as the ability to efficiently compute and capture many cluster characteristics. Thematic maps are highly intuitive and allow researchers to analyse the evolution of research strands in four different quadrants, identified based on their centrality, plotted on the X-axis and density plotted on the Y-axis (Cobo et al., 2011; Funko et al., 2023; Bamel et al., 2024). Centrality examines the importance of a topic in a specific domain, and how well it is simultaneously connected to other topics in different domains at the same time. Density, on the other hand, measures the strength with which the keywords in a given cluster are connected to each other and therefore the degree of development of a theme (Cobo et al., 2011). In this sense, the upper right quadrant contains themes with high centrality and density (the so-called 'Motor Themes') capable of influencing research outside the cluster and well-developed internally as well. The bottom right quadrant shows themes that are transversal to a discipline and capable of influencing other topics, as they have high centrality but are weakly consolidated internally owing to basic themes. The bottom left quadrant highlights themes that are emerging or disappearing (emerging vs declining themes), as they have low centrality and density. Finally, the upper left quadrant includes niche themes among scholars ('niche themes'), which are well-developed internally, by virtue of high density, but are not able to influence other themes due to low centrality.

As expected, CCIs were the most common motor themes. However, we also highlighted that all others were related to CCIs and their actions. In fact:

Sustainability/sustainable:

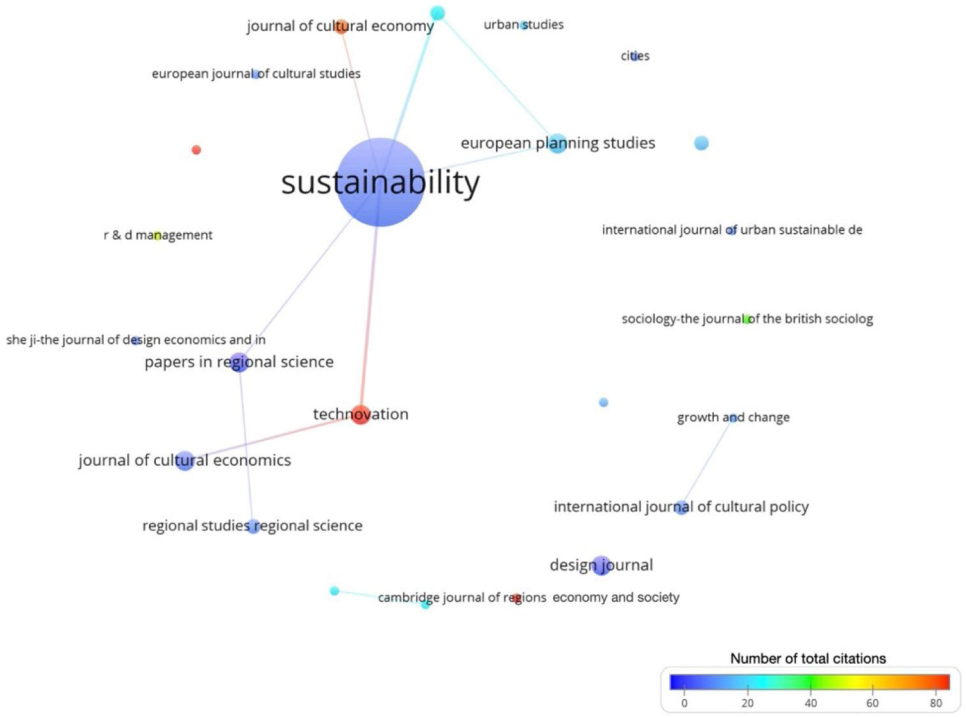

Fig. 9. Journal network visualisation. The journals are colour-coded by the number of cumulative citations and the circles are sized-coded by the number of papers published in the corresponding journal. Authors' analysis using WoS data with VOSviewer.

Table 5
Statistics of the most used research methodologies. Source: Authors' elaboration.

Methods	N. of articles (%)	Type
QUALITATIVE METHODS	(65 %)	
Context analysis	13 (18 %)	Employing multi-source data on society, economy, and geography for GIS analysis of cultural and creative industries
Semi-structured interviews	16 (22 %)	Face-to-face interviews, qualitative interviews
Ethnographic observation	7 (10 %)	Long-term participant observation, Observation in natural environments
Case studies	11 (15 %)	Case studies, multiple case studies, Delphi, focus groups
QUANTITATIVE METHODS	(35 %)	
Surveys	15 (20 %)	Online surveys, printed questionnaires, phone surveys, structured interviews, face-to-face surveys
Statistical analyses	8 (10 %)	Structural equation modelling to test theoretical models and relationships among identified indicators in CCIs, use of spatial entropic weighted overlay method, linear and multilinear regressions, network analysis, document and bibliometric analysis to map trends and knowledge domains in CCIs
Econometric analyses	3 (5 %)	Structural Equation Models (SEM), Time Series Analysis, Panel Analysis, Logistic Regression Models, Conglomerate Analysis (Cluster Analysis), Principal Component Analysis (PCA), Instrumental Variable Models (IV)
Mixed-methods	8 (10 %)	Combination of interviews, documentary analysis, and participant observation develop integrated theoretical frameworks

The majority of the current projects carried out by CCIs nowadays deal with the 'double transition' (digital and green).

Sustainable development:

CCIs are becoming increasingly important for promoting sustainable development. This includes the use of creative approaches to address environmental challenges such as climate change and pollution.

Resilience:

CCIs are also becoming crucial for building community resilience. This includes creative approaches to prepare for and respond to disasters.

Furthermore, the most central themes were also interconnected with CCIs:

Social innovation:

CCIs can be used to develop new solutions to social problems. This includes the use of creative approaches to address issues, such as poverty, inequality, and social exclusion.

Urban development:

CCIs can revitalise cities and communities. This includes the use of creative approaches to attract investment, create jobs, and improve residents' quality of life.

The third large cluster lies on the density axis but towards the high relevance side. In particular, CCIs are increasingly viewed as key drivers of innovation and diversity in the cultural sector. CCIs remain at the heart of the cultural sector because they are responsible for the creation and distribution of cultural goods and services. Therefore, they are the main contributors to a creative economy.

Finally, it is worth noticing the presence of the word 'knowledge' in the upper left corner as a niche theme. Therefore, researchers and scholars consider CCIs as a source of knowledge and expertise, although this fact does not drive the field. Finally, in the emerging and declining theme corners, we can find keyword development, most likely because it has emerged in the last few years.

To demonstrate the interconnectivity between CCIs and other motor and central themes, as well as to understand how these themes relate to each other, we show in Fig. 11 the network map of the keywords produced with the same algorithm used for the previous figure.

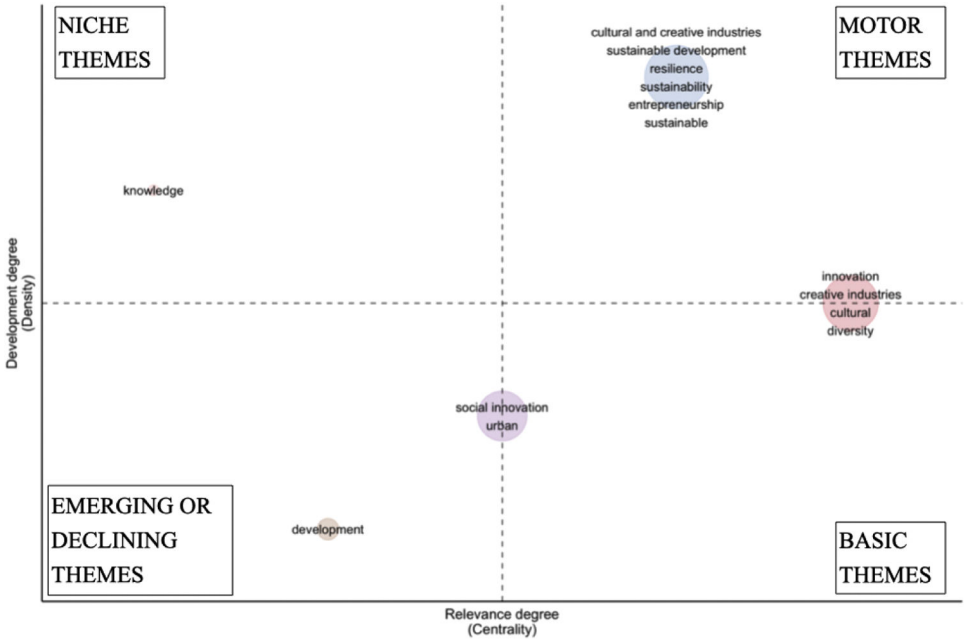

Fig. 10. Thematic map of the main topics, divided into four groups identified by the four quadrants and created with Biblioshiny. The scatter plot shows the density versus the relevance of the topic (centrality). Authors' analysis using WoS data with Bibliometrix. Visualisation Biblioshiny.

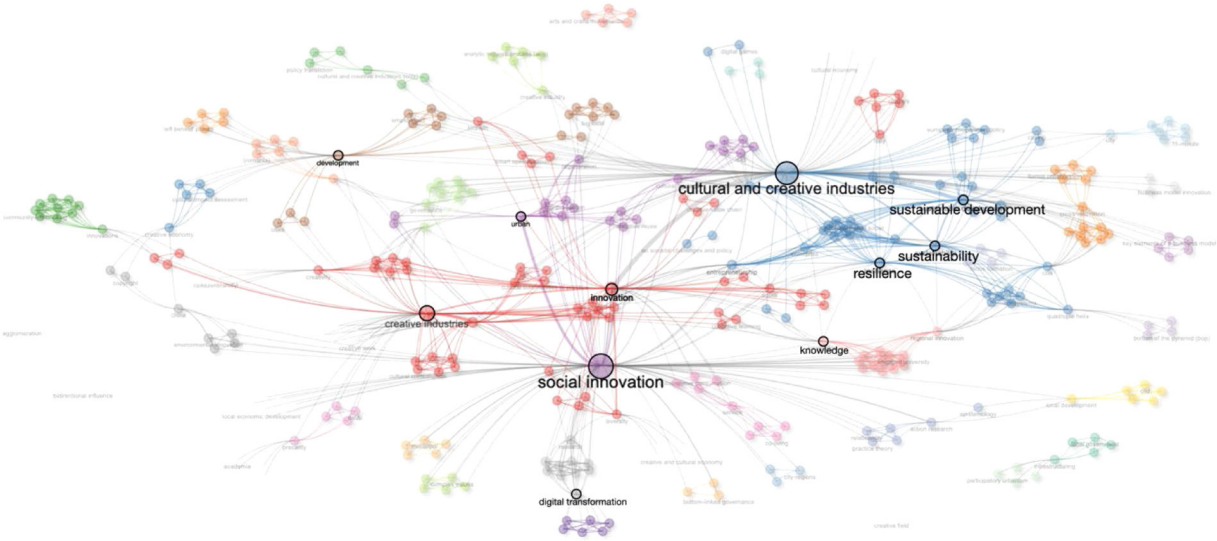

Fig. 11. Network map of the authors' keywords for the 76 papers. Authors' analysis using WoS data with Bibliometrix. Visualisation Biblioshiny.

As expected, CCIs and social innovation are central and mutually interconnected. Furthermore, sustainability, resilience, and sustainable development are closely related and directly connected to the CCIs (blue lines and clusters). Social innovation is closely connected to innovation, urbanisation, digital transformation, and knowledge, although the connection to CCIs is less obvious for these keywords.

Figs. 10 and 11 show a noteworthy intersection between sustainability, resilience, sustainable development, and the role of CCIs in social innovation. As already described, CCIs contribute to social innovation by fostering inclusive, people-centred approaches that address pressing societal challenges, such as inequality, urban decline, and environmental degradation (Liang & Wang, 2020; Fava, 2022). For instance, through culturally driven regeneration projects, CCIs help revitalise urban areas and transform abandoned or marginalised spaces into vibrant cultural hubs. This directly ties sustainability to social innovation because these projects promote both environmental and community resilience. As Gerlitz and Prause (2021) argued, CCIs play an important role as brokers of sustainable transitions, driving macro-regional development using cultural assets to promote sustainable urban regeneration.

These interconnections are not merely coincidental, but reveal a deeper alignment between the roles CCIs play in fostering social change and addressing sustainability challenges, which are at the core of contemporary research in this field.

Topics' time evolution

The papers were divided into five different periods—2011–2015, 2016–2018, 2019–2020, 2021–2023, and 2024—to carry out an initial exploration of the evolution of the topics covered and their interrelationships. Fig. 12 shows the time evolution of topics (timeline) in the top panel and a thematic map at the bottom. The timeline was

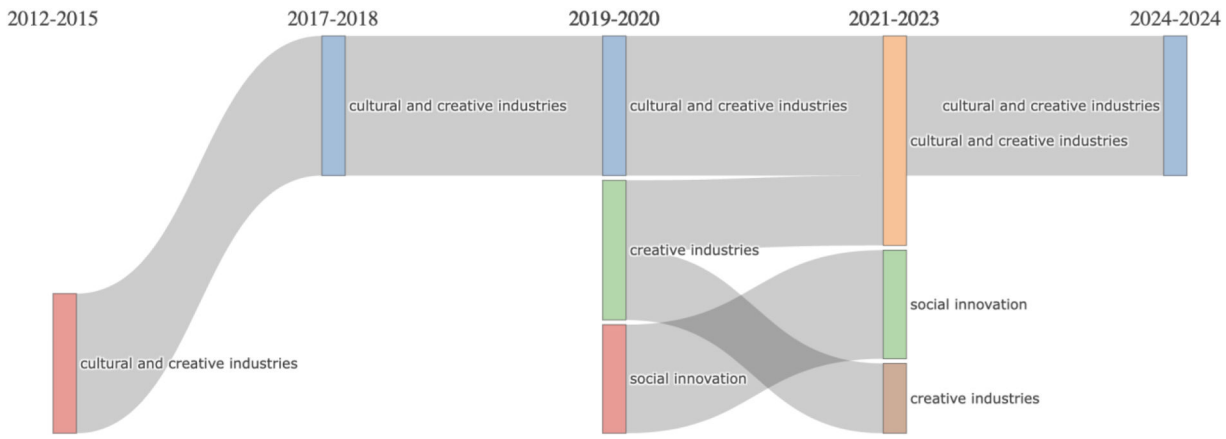

Fig. 12. Time evolution of the main topics. Authors' analysis using WoS data with Bibliometrix. Visualisation Biblioshiny.

divided into four ranges (using the time divisions listed above), each of which showcased the dominant themes and emerging or declining trends within the research landscape. Over time, specific themes related to diversity and inclusion emerged and then declined in favour of others; however, cultural and creative industries remained central.

This timeline is also a useful tool for understanding the evolution of CCIs. It shows how CCIs have grown and changed over time, and highlights the key trends shaping the sector. This timeline can also be used to identify opportunities for the investment and development of CCIs.

In summary, by reading the papers published in various periods, we observed the following:

2011–2015:

This period was marked by the emergence of CCIs as a distinct economic sector. The term 'CCIs' was first coined in the 1990s, but it was not until the early 2010s that governments and policymakers began to recognise the sector. This is partly due to the growing economic and social impacts of CCIs.

2016–2018:

This period was marked by the continued growth of CCIs (and consequently, research on them) and the increasing focus on their role in innovation and social development. CCIs started to be seen as a potential driver of economic growth and job creation, and they were also seen as a way to address social challenges such as poverty and inequality.

2019–2020:

This period was marked by the COVID-19 pandemic, which had a significant impact on the CCIs. The pandemic led to the closure of many cultural institutions and the cancellation of many events. This had a major impact on the revenue of CCIs and led to job losses. Nevertheless, in their research, they remained central to social innovation.

2021–2023:

This period was marked by the recovery of CCIs during the COVID-19 pandemic. CCIs adapted to the new normal by developing new ways to reach audiences, such as online streaming, virtual events, metaverse, and virtual reality. They also received government support to help them recover from the pandemic.

2024–2024:

This period is still ongoing, but is expected to be marked by continued growth and innovation in the CCI sector. CCIs are expected to play an increasingly important role in both the economy and society.

Main issues

There were six main issues the 76 selected papers focused on. The relative percentage of papers addressing each issue is shown in the pie chart in Fig. 13. In summary, 25 % (19/76) of the publications focused

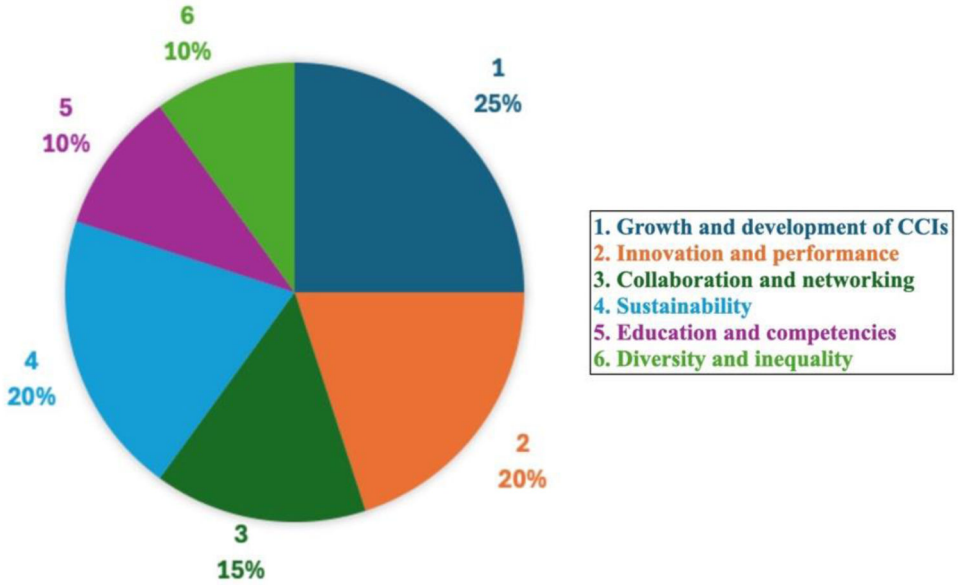

Fig. 13. Main issues analysed in the 76 selected papers. Source: Authors' elaboration.

on the growth and development of CCIs, and 20 % on the important themes of innovation and performance (15/76) and sustainability (15/76). Further, 15 % (11/76) highlighted the importance of collaboration and networking, and 10 % dealt with issues related to education and the development of specific competencies (such as technological and managerial competencies). Finally, another 10 % were particularly sensitive to diversity and inequality issues in social and cultural innovation.

The main conclusion drawn from this categorisation was that the 76 papers were broadly distributed across themes that touch upon innovation, sustainability, and social issues. They all highlighted the need for inter- and cross-disciplinary research and analysis, as discussed in detail below.

Results

In this section, we analysed the 76 papers in our final sample in detail, highlighting the main topics, themes, and findings to construct a general framework summarising the current state of knowledge on how CCIs can foster social innovation. By analysing these studies, we aimed to illuminate the interconnectedness between CCIs and social innovation, providing insights into the collaborative dynamics that underpin successful initiatives in this rapidly evolving field.

We started by grouping the papers in four main lines of thoughts:

1. Collaboration and heterogeneous sources of knowledge for innovation.

According to papers belonging to this group, companies that collaborate formally or informally with CCIs can benefit from 'heterogeneous sources of knowledge' (HSK), or knowledge from different sectors able to improve innovation performance (Santoro et al., 2020). This stimulates the creation of new and innovative ideas and can activate a set of cognitive and productive mechanisms that form the basis of human capital dynamics (Mecocci et al., 2022). This stimulates the creation of innovative ideas. Furthermore, Carayannis and Morawska-Jancelewicz (2022) argued that the advent of 'Society 5.0′ and 'Industry 5.0′ will be characterised by strong collaboration between universities, businesses, and creative industries. These interactions will enable the development of innovative solutions for future social and technological challenges.

Sustainability was a recurring theme in this group, with many abstracts exploring how cultural and creative industries can contribute to development goals. Furthermore, some studies explored the role of universities in local cultural innovation (e.g. Bragaglia, 2024).

2. Innovative business models and social value creation.

Leadership practices and regional innovation systems dominated this group's studies, with a focus on transforming industries towards greener practices. However, the topic of sustainability was also presented from the perspective of developing competencies for guiding sustainable growth.

Landoni et al. (2020) analysed the innovative business models of three leading companies in the mobile gaming sector. This study, although dealing with a specific concrete sector only, highlighted how innovation is not just about technology but also about business models that enable value creation and customer loyalty. De Silva and Wright (2019) introduced the concept of 'entrepreneurial co-creation', in which creative companies collaborate with their stakeholders to generate innovative solutions that positively impact society. Sacco et al. (2018) outlined three sociotechnical regimes for creating economic and social value through culture: Culture 1.0 (traditional cultural goods), Culture 2.0 (digitized cultural goods), and Culture 3.0 (participatory and collaborative cultural goods). The latter model is considered to be the most promising for generating social value and cohesion in Europe.

3. Local and regional development and the role of CCIs.

This group revolved around creative industries and their connections to tourism, regional challenges, and innovation. This group emphasised how CCIs contribute to tourism and regional development, especially in the context of sustainability, which is a recurring theme for all groups. There was also a particular focus on 'green tourism' (e.g. Papadaki, 2024)

Andres and Chapain (2013) analysed the integration of CCIs into local and regional development strategies with reference to Birmingham and Marseille. This study emphasised the importance of inclusive and collaborative governance in maximising the positive impacts of CCIs on economic and social development. MacKinnon et al. (2022) reformulated the concept of 'development' by considering 'left-behind areas', or areas that are struggling to keep up with economic and social progress. This study argued that CCIs can play an important role in the regeneration of these areas by creating economic and cultural opportunities. Many papers assigned to this group were similar to those assigned to the previous group, especially those that deal with new business models in local development.

4. Leadership and skills for sustainability and resilience of creative Small and Medium-sized Enterprises (SMEs) and universities.

In addition, this final group discussed CCIs and sustainability from a more specific context of leadership and skill creation to industry-specific innovations, particularly focusing on small and medium-sized enterprises. Leadership, green capabilities, and regional innovation systems were central to this group, with a focus on transitioning industries towards more sustainable practices.

For instance, Suriyankietkaew et al. (2022) focused on leadership practices and skills required for creative SMEs to be sustainable and resilient. Based on a community-based social enterprise, this study highlighted the importance of visionary and collaborative leadership in addressing challenges and generating positive impacts. Campbell et al. (2019) analysed the relationship between cultural engagement and the economic performance of CCIs. It is argued that it is necessary to overcome the critical view of cultural work, recognising its potential contribution to economic and social development. Gill (2014) discussed the growing precarity, intensification, and extensification of academic labour. The paper argued that academics experience similar working conditions to cultural workers and called for a new way of thinking about 'academic labour and power in the academy' (Gill, 2014). Several papers from this group, particularly those discussing the role of universities and cultural institutions in promoting social innovation, could potentially be related to the first group.

Table 6 summarises the distribution of the 76 papers assigned to the four main lines of thought described above. For each group, we provided the number of papers belonging to it, leading papers (the most cited ones), and a few other illustrative examples. However, some publications were assigned to more than one group. In these cases, we considered only the strongest association according to the abstract and main content of the papers.

The most interesting and representative case in this regard is Paunovic et al. (2022), which intersects all four lines of thought. This study considered universities as a particular form of CCIs. It focused on university-government relations, a form of collaboration between different sectors, and highlighted the importance of leveraging diverse knowledge sources (from both universities and municipalities) to foster entrepreneurial initiatives. By examining the role of universities in rural regional development, this study discussed how CCIs can encourage entrepreneurial initiatives to promote economic and social development. It also presented a business or governance model (the triple helix). Finally, the study discussed leadership and collaboration between universities and governments, suggesting that universities should adopt a more proactive and collaborative approach to promote entrepreneurship that aligns with the themes of leadership and sustainability. Based on these intersections, the study fits well within any of the four themes. However, given its specific focus on university-government relations and its relevance to rural development, it might be most appropriate to place it within the local and regional development and the role of the CCIs theme, to which it is assigned in the table.

These four lines of thought are interconnected and share many commonalities. Above all, sustainability seems to be a central motor

Table 6
The main line of thoughts identified from the analysis of the 76 papers. The table lists from left to right the topic, the leading papers in the group (10 most cited ones), the number of papers belonging to it, and some illustrative examples. Source: Authors' elaboration.

Main lines of thoughts	Leading papers	Number of papers	Cumulative citations	Illustrative examples
HSK for Innovation to improve innovation performance	Santoro et al., 2020; Carayannis & Morawska-Jancelewicz, 2022	11	433	Lorne (2019); Nogare & Murzyn-Kupisz, 2021
Entrepreneurial co-creation *for Innovative Business Models and Social Value Creation*	Landoni et al., 2020; De Silva & Wright, 2019; Sacco et al., 2018	22	415	Svensson et al., 2017; Thompson, 2018b
Inclusive and collaborative governance for *Local and Regional Development*	Andres & Chapain., 2013; MacKinnon et al., 2022	34	501	Servillo, 2019; Kerr and Cawley, 2011; Eizaguirre & Parés, 2019
Leadership and Skills for Sustainability and Resilience	Suriyankietkaew et al., 2022; Campbell et al., 2019; Gill, 2014	9	283	Gasparin & Quinn, 2020; Alacovska and O'Brien, 2021

theme in the majority of the papers analysed from all groups. However, each group contextualises the importance of sustainability in different ways. For instance, the first group explored sustainability from the perspective of CCIs, contributing to the realisation of innovative sustainable solutions for future social and technological challenges. The third highlighted the alignment between sustainability and tourism through green tourism initiatives connected to CCIs, and the fourth discussed the need for effective leadership and structured innovation systems to guide sustainable transformation in regions and industries.

Universities are seen as important players in fostering innovation, particularly in local development through CCIs in all groups. However, papers belonging to group 4 stressed that education and systemic creativity play a key role in advancing sustainability, suggesting that educational institutions play a critical role in driving regional innovation and sustainability goals. Group 1 discussed CCIs in the context of innovation within local ecosystems that are often connected to universities and community partnerships. Group 3 took this further by showing how CCIs can be linked to tourism and smart specialisation strategies, particularly in regions undergoing economic transitions. Both groups emphasised that CCIs are not only cultural assets but also significant drivers of economic revitalisation and environmental and social innovation (Hawkes, 2001) and reflect a common interest in the role of creativity in fostering innovation across sectors.

Furthermore, technology is viewed primarily as a tool for pursuing social innovation, which serves as a bridge between territorial capital and innovation (Mendoza et al., 2023). The role of technology can also be extended to urban heritage management processes where it facilitates the transition necessary to restore continuity in landscape change, thereby supporting local communities in reclaiming vital knowledge (Girard & Vecco., 2021; Tiago et al., 2020).

Interestingly, all papers published between 2012 and 2017 dealt with local and regional development with a specific focus on tourism. The other lines of thought have only started in recent times, demonstrating once again that the field of CCIs, and in particular their potential to drive social innovation from a broader point of view, is emerging. For instance, initiatives such as the 2014–2020 European programme for creativity and the implementation of the Faro Convention have underscored the capacity of CCIs to drive social innovation, to revitalise local communities and promote social cohesion (Meggiorin, 2023). Moreover, they call for a multidisciplinary approach whereby CCIs collaborate with other actors, including private partners, practitioners and policy-makers. This policy environment stimulated funding and research projects, leading to a marked expansion of scholarly output in this new area in recent years. Conversely, only eight of the 76 papers focused on new leadership and skills for sustainability and resilience, and they were all very recent (from 2020 onwards). Nevertheless, this line of thought received 272 citations cumulatively, demonstrating that this emerging theme will become increasingly popular in the future.

All these studies advocate for a participatory framework in which CCIs collaborate with different stakeholders to acquire essential economic, environmental, managerial, and research skills. Collaboration and networking, along with the development of new skills, were highlighted as central issues in the preceding section. This underscores the fact that collaboration with other sectors, the creation of innovative business models, and a well-structured research plan focused on social impact are critical factors for the growth and sustainability of CCIs (Klein et al., 2021; Faraone, 2022).

A theoretical framework

A systematic literature review revealed a consensus among the most cited authors that CCIs can serve as catalysts for social innovation but only when they collaborate, co-create, and engage with diverse actors and stakeholders. However, each group places varying emphasis on different economic, social, and environmental sectors, which are the main pillars of sustainability (Purvis et al., 2022; Amaral et al., 2023). In this section, we attempt to contextualise these different approaches to build a theoretical foundation for a sustainable development framework.

The first theoretical foundation and general framework of sustainability were outlined by Boyer et al. in 2016 (hereafter B16), who contextualised social sustainability within the broader framework of sustainable development. B16 recommended an 'integrated approach' that considers social sustainability as a central concept intrinsically connected to the environmental and economic aspects, leading to holistic solutions that simultaneously address social and economic needs, justice, the environment, and human capabilities. This approach is based on the authors' conviction that responding adequately to multiple realities requires multiple social approaches. B16 constructed five different typologies of application of the social dimension in real contexts, varying the role of social sustainability, its degree of integration, and its relationship to environmental and economic pillars. Drawing a direct parallel, we built a general, integrated framework that places CCIs at the centre of a broader collaborative context. The main conclusion of our systematic literature review was that CCIs foster social innovation by collaborating with various actors and stakeholders. Depending on the specific situation and the main aspects to be considered, CCIs can work with government and territorial authorities, business companies, universities, and/or entities with more technical and managerial skills. The role and centrality of CCIs vary depending on the specific case and situation.

The four groups defined and explained above demonstrate that the most cited authors/papers all agree on considering CCIs as motors of social innovation, but only when they collaborate, co-create, and act with different actors and stakeholders. However, each group assigns varying importance to different economic, social, and environmental sectors, which are also the main pillars of sustainability. Building on this, in Fig. 14, we proposed a general framework that positions CCIs at the centre of a broader multidisciplinary context for economic, political, and territorial growth. This framework highlights the importance of collaboration, co-creation, and engagement with various stakeholders in CCIs to effectively foster social innovation and contribute to sustainable development.

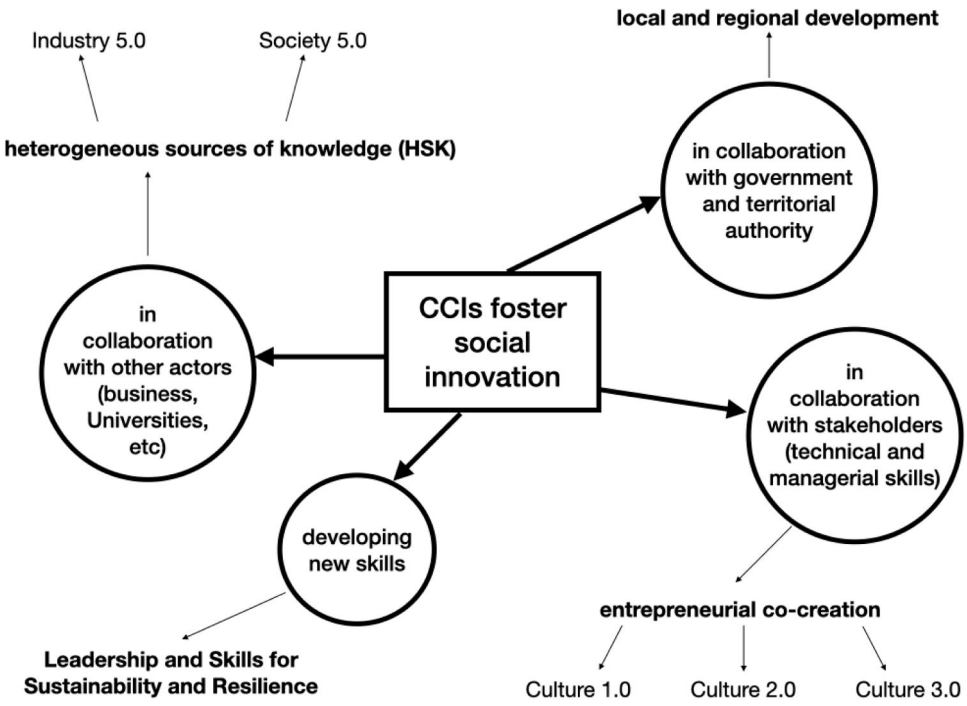

Fig. 14. A framework of the role of CCIs in collaboration with other actors. Source: Authors' elaboration.

Discussion

This structured literature review highlighted that, over the past decade, the scientific discourse surrounding cultural innovation and CCIs has become increasingly vibrant (RQ3). The number of publications addressing these concepts has steadily increased since 2018. By identifying the most-cited journals, this study underscores the credibility and authority of the sources contributing to the discourse on CCIs and social innovation, thereby guiding future researchers to select reputable venues for their work. Furthermore, our findings indicate that since 2017, the concept of CCIs has become closely intertwined with social innovation, with collaboration and co-creation among diverse stakeholders emerging as a critical necessity (RQ5). Sustainable development and resilience are more recent themes that have become prominent in the most recent literature (RQ1) and are rapidly evolving.

In addition, we observed a broadening of perspectives among researchers and businesses, particularly in Italy and the UK, which were the most prolific contributors to this field (RQ4). In terms of publication journals (RQ2), the journal 'Sustainability' stood out as the one with the highest number of articles, accounting for 27 of the 76 documents reviewed. Technovation had the largest cumulative number of citations. One possible way to explain the discrepancy between the most common and the most cited papers is that 'Sustainability' is Open Access (OA), while the others are not. OA journals were among the first to provide visibility and immediate access to research on cultural and social innovation, thus contributing significantly to the dissemination of research in this emerging field. The OA model democratises access to knowledge, allowing for broader engagement, especially in emerging fields such as CCIs and social innovation. Indeed, studies such as those by Hrynaszkiewicz (2016) and Kankam et al. (2024) confirmed that OA journals often play a crucial role in expanding access to and the dissemination of research findings. This made OA journals the most common choice for publishing on these topics, especially in the early stages when visibility and rapid access were priorities for researchers (from 2018, Fig. 8).

However, the citation consolidation process takes time, and some traditional or limited access journals that publish long-term studies may accumulate more citations because of their established authority and academic impact. Furthermore, journals with very high impact factors in a specifically and well-established field (like 'Technovation', 'Journal of Cleaner Production', and 'Regional Studies') may publish fewer articles on these somewhat new topics, but their long-established reputation makes them influential in shaping academic discourse, hence attracting more citations.

The typical audiences of these journals are also an important consideration. For instance, journals with a focus on management, innovation, and regional development, like 'Technovation' or 'Regional Studies', tend to reach professionals and scholars who are decision-makers in public policy or corporate strategy. This could enhance the practical impact of research on CCIs by ensuring that they reach those who can implement the findings in policy or industry. On the other hand, OA journals reach a broader, interdisciplinary audience, as shown in Fig. 2 of Bjork and Korkeamaki (2020), demonstrating that OA journals are the preferred choice for multidisciplinary studies (as well as for the arts, humanities, and social sciences). This is ideal for fostering cross-sector collaboration, which is key to social innovation.

The growing significance of cultural and social innovation in research over the last decade can be attributed to policymakers' regulatory interventions. Notably, the strategy for creativity established during the 2014–2020 programming period, along with the prior approval and implementation of the Faro Convention by several leading European nations, has played a pivotal role in shaping the scientific discourse on these subjects. The Council of Europe Framework Convention on the Value of Cultural Heritage for Society recognises that territories are integral to cultural heritage. It emphasises the need for these territories to enhance the relationship between the environment and communities, ensuring their preservation and the transmission of their value to future generations (Council of Europe et al., 2011).

We endeavoured to categorise the main themes into four different lines of thought and analysed how the 76 publications were distributed across them. We also highlighted which line of thought is better established and which ones are emerging by looking at the timespan of papers focusing on each of them.

Hence, we developed a theoretical framework that aids scholars and practitioners in understanding how various aspects of CCIs interact with social innovation. In summary, this review not only highlights the

dynamic nature of research in cultural innovation and CCIs but also emphasises the importance of collaborative efforts in fostering social innovation and sustainable development.

Theoretical implications

An in-depth analysis of the final sample of 76 papers selected from the bibliometric literature review demonstrated that CCIs can serve as powerful drivers of sustainable development through culture, particularly when engaged with other stakeholders. Notably, all the studies examined highlighted the evolution of CCIs towards a more collaborative and innovative ecosystem, emphasising the necessity for CCIs to partner with various actors to drive social innovation effectively. This suggests a multifaceted approach wherein CCIs do not operate in isolation, but as integral components of a broader ecosystem that enhances their capacity for social innovation. However, each group of studies primarily focuses on one of the three main sectors: economic, territorial/environmental, or social. Our primary conclusion is that adopting a broader approach in which CCIs co-create and collaborate with a diverse array of actors across different sectors could significantly enhance social innovation and sustainability outcomes. Following the framework established by Boyer et al. (2016), we proposed a general, theoretical, and interdisciplinary framework that advocates an integrated approach and adapts to the specific context under analysis. The emphasis on CCIs acquiring new leadership skills and competencies for sustainability and resilience (Campbell et al., 2019; Suriyankietkaew et al., 2022) introduces a theoretical framework that positions these industries as dynamic entities capable of adapting to socioeconomic and environmental challenges. This adaptability is crucial to the long-term impact of CCIs on social innovation, suggesting that continuous learning and development are essential for success. At the same time, it is important to acknowledge that some articles raise critical issues regarding the governance necessary for the development of CCIs and the analysis of labour conditions within these industries. Therefore, our newly proposed general framework also encompasses managerial and policy implications for organisations operating within these sectors, as outlined below. This comprehensive approach not only reinforces the role of CCIs in fostering social innovation but also highlights the need for strategic collaboration across various sectors, ultimately contributing to a more sustainable and resilient future.

Managerial implications

Managers in CCIs should prioritise building strong partnerships with entities from diverse sectors, encompassing a range of backgrounds, priorities, and expertise. This includes collaborations with businesses, universities, government bodies, and community organisations. Such multidisciplinary collaboration is essential for developing innovative solutions to societal challenges, thereby stimulating creativity and enhancing problem-solving strategies (Palazzo et al., 2023; Nalmpanti et al., 2024). Another critical aspect is the development of innovative business models that create value for customers and society. This entails effectively measuring the social impact while ensuring the financial sustainability of organisations, including the adoption of digital technologies (Xia et al., 2024). Additionally, one group of papers emphasises the role of CCIs in local and regional development. In this context, managers should ensure that their organisations actively contribute to community regeneration and economic growth by creating jobs, enhancing cultural vibrancy, and improving the overall quality of life (Cerisola & Panzera, 2021). This requires establishing an inclusive and collaborative governance structure. From educational and human development perspectives, managers must invest in employee development and upskilling initiatives to equip their teams with the ability to adapt to changing market conditions and technological advancements (Micozzi et al., 2021). It is important to recognise that while the research provides a solid foundation, the specific implementation strategies vary based on the organisation's size, sector, target market, and geographical context. The managerial implications derived from this review highlight the importance of collaboration, innovation, and continuous learning in CCIs. By fostering partnerships across diverse sectors and investing in employee development, managers can enhance their organisation's capacity to drive social innovation and contribute to sustainable development.

Policy implications

From a policy perspective, fostering collaboration between actors and stakeholders requires an inclusive and supportive policy framework. Policymakers should actively promote partnerships among CCIs, businesses, universities, and governmental entities. This can be achieved through financial incentives, networking platforms, or joint funding. Additionally, fostering a culture of collaboration and knowledge-sharing within these sectors is essential. By creating an ecosystem in which diverse perspectives and expertise converge, policymakers can stimulate the development of innovative solutions to societal challenges (Dabbous & Tarhini, 2021). Governments and policymakers should also encourage experimentation and risk-taking by providing support for early stage ventures and incubators, as well as facilitating access to financing for CCIs seeking to develop new business models with a social impact (Andres & Chapain, 2013; Marasco et al., 2024). Our literature review highlights the significant role of CCIs in local and regional development. Therefore, policymakers should integrate CCIs into broader economic and social development strategies by investing in cultural infrastructure, supporting cultural tourism, and creating opportunities for them to contribute to urban regeneration. This integration can revitalise communities and improve residents' quality of life (Kalfas et al., 2024). The development of leadership and skills in the CCIs sector is crucial to long-term sustainability and resilience. Policymakers should invest in education and training programs that equip cultural professionals with the competencies necessary to navigate complex and changing environments (Salvador & Comunian, 2023). Supporting R&D activities within a sector can also contribute to building a knowledge base that informs policymaking and practices (Imperiale et al., 2021; Meyer et al., 2022). Therefore, a comprehensive and integrated policy agenda for CCIs is essential. This agenda should promote partnerships among stakeholders, facilitate access to resources and support the development of innovative business models. By doing so, policymakers can enhance the capacity of CCIs to drive social innovation and contribute to sustainable development at local, regional, and national levels.

Digital transformation: the long-term effects of collaborative strategies

Our analysis demonstrates that sustainability and sustainable development are strictly connected to CCIs and social innovation. Nearly all 76 papers in our final sample had sustainability and/or sustainable development as the central topic. CCIs are not only motors for social innovation, economic growth, and local territorial regeneration but also play a crucial role in shaping a more sustainable future. As highlighted in the Results section, collaboration between various stakeholders, including businesses, academic institutions, local governments, and community organisations, is key to sustainable social and cultural innovation. The direction that EU policy and regulations are following identifies the 'twin transition' as a strategical goal (Muench et al., 2022). Hence, 'green' and sustainable must be necessarily accompanied by 'blue' and digital.

The rapid digital landscape presents both challenges and opportunities for CCIs as a motor of cultural and socially sustainable innovation, which requires closer examination. The digital transformation of the creative sector has reshaped how CCIs operate, especially the ways in which they engage with communities and foster culture (Frangos et al., 2017). The rise of digital platforms, streaming services, and virtual reality has enabled CCIs to reach wider audiences and eliminate local and

regional physical barriers. This clearly creates new avenues for cultural exchange and innovation and facilitates co-creation processes that are fundamental to collaborative strategies, allowing CCIs to engage with diverse stakeholders across geographical boundaries (Katsamakas et al., 2022).

This democratisation of cultural content can strengthen CCIs' role as agents of social innovation, fostering inclusivity and diversity in cultural expression (Snowball et al., 2021).

On the other side, these tools have called for new business models, such as those driven by data analytics and artificial intelligence, which have the potential to improve financial sustainability through targeted audience engagement and customized content delivery (Al-Omoush et al., 2022). From a managerial perspective, leaders who can foster collaborative environments that embrace technology are more likely to ensure the long-term viability of their organisations. Campbell et al. (2019) discussed how cultural engagement linked to economic performance necessitates an understanding of digital trends, highlighting that CCIs must be proactive in adopting and integrating digital strategies to remain competitive.

However, although the digital shift offers significant advantages, it also presents risks and issues that could undermine long-term sustainability if not managed carefully. For instance, the increasing use of digital infrastructure raises concerns about data privacy, intellectual property rights, and the potential monopolisation of distribution channels by large tech companies that dominate the market (Papadaki, 2024). Moreover, one of the biggest issues is represented by the so-called 'digital divide': CCIs in regions with limited access to digital tools and infrastructure may find themselves at a competitive disadvantage, hence increasing inequalities within the sector (MacKinnon et al., 2022; Đorić, 2022).

Collaborative strategies that effectively incorporate digital tools will likely prove more resilient, especially in times of crisis, as evidenced by the creative sector's response to the COVID-19 pandemic (Cercleux, 2021). Initiatives that promote digital literacy, support the adoption of new technologies, and provide access to digital infrastructure for marginalised communities are crucial to ensure that CCIs can continue to drive social and cultural innovation in a rapidly changing environment (Klein et al., 2021; Eden et al., 2024).

In conclusion, the sustainability of CCIs depends on their ability (and necessity) to adapt to digital transformations while maintaining the integrity of their collaborative networks. How these industries embrace digital transformation inevitably shapes the long-term effects of collaborative strategies on CCI sustainability. Policymakers and stakeholders must prioritise digital inclusion, innovation, and ethical considerations to safeguard the future of CCIs, ensuring that they remain dynamic contributors to sustainable development in both local and global contexts (Imperiale et al., 2021; Faraone, 2022).

Conclusions, limitations, and future research agenda

We presented a structured literature review focused on cultural and social innovation, particularly examining CCIs. This review analysed peer-reviewed, OA papers describing community-based social innovation practices within CCIs. Our aim was to investigate the relationship between community-based cultural projects and social innovation, and to assess how this field has evolved over time.

The analysis was conducted using the WoS database, from which we selected a sample of 302 papers dealing with the topic of cultural and social innovation with a particular focus on CCIs. The metrics for this collection of papers were analysed using 'Bibliometrix' (Aria & Cuccurullo, 2017) and 'VOSviewer' (Van Eck & Waltman, 2017). These tools offer a structured method to address our research questions by enabling both quantitative analysis and qualitative interpretation of trends, collaborations, and thematic development. Ultimately, we compiled a final sample of 76 papers, representing a manageable collection of publications that were analysed in more detail using both automated software and a manual review of their abstracts. Through this analysis, we identified key topics, issues, and their temporal evolution, providing insights into the future directions this field may take and identifying 'core themes' and their interrelations. By examining how these themes intersect, it became clear that the evolution of research in this domain is moving towards a more integrated understanding of CCIs as drivers of both cultural and societal transformations. Much of the literature initially focused on the economic contributions of CCIs, but recent studies have expanded the focus to encompass social and environmental dimensions. This shift reflects a broader recognition that CCIs are not only economic drivers but also powerful agents of cultural and societal change.

Among the 76 papers, we identified four broad lines of thought that intersect key ideas of sustainability, innovation, creative industries, and leadership, but face them from very different and complementary perspectives. As expected, CCIs are repeatedly seen as pivotal actors driving economic and social innovation, whereas leadership and systemic innovation frameworks are vital for embedding sustainability into both industrial practices and regional development strategies. The sustainability theme is central to almost all the analyses, and CCIs have been strictly related to it in recent years. Indeed, the intertwining of sustainability with social innovation underscores the importance of adaptive and forward-thinking approaches, in which CCIs are uniquely positioned for exploration.

This implies that creativity, sustainability, and leadership are interdependent in modern economic, territorial, and environmental challenges. This motivated us to build a theoretical framework that positions CCIs within the broader contexts of economic, territorial, managerial, and political life. Our findings demonstrate that CCIs foster social innovation through culture; however, their potential is maximised only when they collaborate with other actors. Different studies have emphasised the various aspects of these collaborations. Some argue that partnerships with businesses or universities are crucial for creating 'heterogeneous sources of knowledge' (HSK, Santoro et al., 2020). Others have highlighted the necessity for CCIs to collaborate with government and territorial authorities to promote local and regional development (Andres & Chapain, 2013; MacKinnon et al., 2022). The third group focuses on the concept of 'entrepreneurial co-creation' (De Silva & Wright, 2019), suggesting that CCIs should engage stakeholders possessing technical and managerial expertise. Additionally, there is consensus that CCIs must acquire new leadership skills for sustainability and resilience (Gill, 2014; Campbell et al., 2019; Suriyankietkaew et al., 2022). Hence, our research findings advocate the strategic integration of CCIs into broader environmental, territorial, social, and economic development agendas. By developing inclusive and participatory business models and implementing policies that foster collaboration, innovation, and capacity building, managers and policymakers can unlock the full potential of CCIs to drive positive change. Therefore, it is essential to adopt a holistic approach that considers the interconnectedness of economic, social, and cultural factors. By collaborating closely with the CCIs and other stakeholders, policymakers can create an environment that enables social innovation to thrive. Furthermore, the synergy between sustainability and digital transformation is the key to ensuring the long-term future of CCIs. The adoption of digital tools has enhanced both operational efficiency and the capacity for social innovation, allowing the industry to continue growing while contributing to a more sustainable and resilient global economy. Digital integration provides the necessary infrastructure for CCIs to meet environmental and economic challenges, ensuring their relevance and sustainability in the future. However, issues such as the digital divide, data privacy, intellectual property rights, and potential monopolisation should be carefully addressed (Du & Wang, 2024).

This rapidly evolving research landscape highlights the increasing complexity of the role of CCIs in society. The intersection of sustainability and social innovation within the realm of CCIs points to the growing recognition that culture, creativity, and innovation are central

in addressing contemporary global challenges and driving social innovation. Future research should explore how CCIs bridge the gaps among cultural production, sustainable development, and social and urban transformation, thereby deepening our understanding of their multifaceted roles.

Our study has several limitations that should be addressed in future studies. First, data collection was intentionally limited to the WoS database, which, while comprehensive, may provide a partial view of the entire landscape of relevant literature. Additionally, our results may be influenced by researchers' cognitive biases and the selective choice of specific WoS topics and keywords, as well as being restricted to peer-reviewed publications. Alternative combinations of these factors can yield different final paper samples, potentially affecting our conclusions. Therefore, future research could enhance generalisability by employing more inclusive selection criteria or expanding the analysis to other databases and gray literature. Second, the number of contributions included in our sample was influenced by time and language restrictions imposed during data collection, as papers published before 2013 and those not written in English were excluded. However, we believe that the timeframe limitation is minor, as our screening phase indicates that the field began to establish itself only after 2009.

Future research should aim to broaden the scope of the reviewed literature, incorporate diverse databases, and consider non-English publications. In addition, exploring the impact of CCIs in various cultural contexts and their roles in addressing contemporary social challenges can provide valuable insights. Investigating the dynamics of collaboration between CCIs and other sectors as well as the effectiveness of different business models in fostering social innovation is crucial for advancing knowledge in this field. By addressing these issues, future studies could contribute to a more comprehensive understanding of the role of CCIs in promoting social innovation and sustainable development.

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CRediT authorship contribution statement

Giusy Sica: Writing – original draft, Visualization, Methodology, Formal analysis, Data curation, Conceptualization. **Maria Palazzo:** Validation, Methodology, Investigation, Conceptualization. **Alessandra Micozzi:** Writing – review & editing, Visualization, Methodology, Funding acquisition, Conceptualization. **Maria Antonella Ferri:** Writing – review & editing, Validation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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