International Research Journal of Multidisciplinary Scope (IRJMS), 2026; 7(2): 1604-1619 IRJMS

Review Article | ISSN (O): 2582-631X DOI: 10.47857/irjms.2026.v07i02.09111

Mapping the Flavours of Sustainability: A Bibliometric Analysis of Ethnic Foods

R Jennifer[1]*, G Parimalarani[2]

[1]Alagappa Institute of Management, Alagappa University, Karaikudi, Sivagangai Dist, Tamil Nadu, India, [2]Department of Bank Management, Alagappa University, Karaikudi, Sivagangai Dist, Tamil Nadu, India. *Corresponding Author's Email: jenniferrphd@alagappauniversity.ac.in

Abstract

This study is a systematic review of the trends and research findings in the field of Sustainable Ethnic Foods (SEF), an area, in which current research is not unified and is mainly location-related. It aims is to provide a full bibliometric summary that clarifies the main themes, contributors and trends worldwide, while also identifying research gaps and prospective future directions. The Web of Science (WOS) database (2014 - 2025) analysis results were taken (1,797 publications analyzed using the Bibliometrix R package (version 4.4.3) through the Biblioshiny interface) and filtered using the Preferred Reporting Items to Systematic Reviews and meta-analyses (PRISMA) framework. The data include 645 journals and 7,301 authors, indicating high levels of international collaboration. The findings show that there has been highly focused attention on obesity, diet, nutrition, ethnicity and food insecurity, which means that the research conducted by SEF has covered health outcomes and social equity extensively. New patterns include mental health, racism, climate change, tourism and heritage, which confirm a growing socio-environmental and structural orientation that connects ethnic food systems to shifts in sustainability, resilience and community health. These results are of great importance to academics, policymakers and practitioners as they have identified current research terrains, thus permitting the formulation of culturally inclusive and sustainable food policies and food industry practices. This paper is one of the first attempts to conduct a systematic literature review of SEF. It provides a multidisciplinary view, reveals the gaps in research and provides future research and innovation directions.

Keywords: Bibliometric Analysis, Ethnicity, Food Insecurity, Nutrition, Sustainable Ethnic Foods.

Introduction

The Sustainable Ethnic Food is food that has overcome the change of time and has been handed down through generations, rooted deeply in tradition, climate and locally available ingredients without losing its Authenticity. Historically, these foods have evolved over thousands of years and their enduring flavours, distinctive spices, special preparation methods, food safety and cultural identity are passed on to future generations with the responsibility of preserving ethnic food. The food systems are also becoming a focal point between the human, animal and environmental health in the modern environment of sustainability and holistic well-being (1). Sustainable food practices are designed to reduce the environmental damage and increase food security (in nutritional, environmental, economical and social aspects) (2, 3). These practices emphasize environmental stewardship, the significance of culture and ethical eating. Moreover, sustainable culinary is a practice that unites the ecological concept with the local culture, focusing on natural and minimally processed foods that promote the sustainability of the environment and the preservation of food heritage (4, 5). Ethnic food can be described as food that is eaten by a particular ethnic group or country that is culturally and socially adopted outside such a group or country. These culinary traditions are shaped by the cultural background, customary practices and the local resources accessible to the community, often rooted in indigenous knowledge of natural resources such as plants and animals, exemplified by Hindu cuisine in India, Maori cuisine in New Zealand and Maasai cuisine in Kenya. (6, 7). Ethnic cuisines involve some distinct cooking techniques, eating styles and symbolism (8), leading to not only food security but also environmental consciousness, local economy and rejuvenation of history (9). Ethnic foods that are traditional and fermented are very nutritious, cheap and resistant to infections, which is vital in the health of the

(Received 10th November 2025; Accepted 15th April 2026; Published 26th April 2026)

community (10). Globalization of the food industry, including population growth, has disrupted the consumption patterns and posed risks to traditional foods Sengel (11). However, the ethnic and traditional foods continue to play a crucial role in ensuring that continuity of culture is preserved as well as encouraging health advantages (9). They meet the requirements of food security, cultural diversity and ecological sustainability in the urban environment (12). Street foods usually have an ethnic backdrop and, as they are based on local knowledge, use of seasonal foods and are resource-efficient (13). The food types also enhance social solidarity and cultural narrative, which are key points of contacts to the locals and visitors (14). Although the issue of ethnic and traditional foods is increasingly being appreciated, the existing literature is still disjointed. The research is highly localized, i.e. with specific cultures or locations (5) yet does not incorporate other cross-cultural or sustainability views (15, 16). Food and sustainability bibliometric reviews also tend to focus on issues like food waste, climate change and organic products whereas neglecting cultural and ecological aspects of ethnic cuisines (17–19). On the same note, there has been limited literature on urban food security and food system that has touched on the role of traditional foodways in resilience and sustainability (20). This is because of the fact that this lack of integration does not broaden the comprehension of the role of ethnic foods (21) in global changes towards sustainability. The study of ethnic and traditional foods has become a major academic concern in the last 50 years in the tourism sector, hospitality, nutrition and cultural studies (22). Ethnic cuisines contribute to cultural heritage, authenticity and destination attraction (14), in which a consumer desire to experience authentic cuisines generates a revival of traditional foodways (12). Besides, the acknowledgment of ethnic foods as functional and sustainable has put them as the source of future food systems (9, 10). This growing academic and social concern demonstrates the importance of ethnic foods in addressing such contemporary challenges as food security, nutrition and environmental sustainability. In this research, the gap in the literature is likely to fill the section dedicated to the analysis of existing studies on SEF published since 2014 and 2025, which were used to obtain data as an input in the WOS database. The goals were to map the knowledge space, thematic development and world-system of global knowledge of this emerging discipline. The following are the research questions that were answered: annual publications patterns and trends, most important countries and collaboration agencies, the most important and commonly interrelated keywords, prolific authors and the highest ranked journals in terms of publication. The questions will be used to structure a systematic review and thematic analysis of the available research. Bringing together diffused research and offering an organized review of SEF. Combining cultural, nutritional and environmental insights will help in the comprehension of ethnic cuisines, as cultural heritage as well as as sustainable practices that enhance resiliency in world food systems (23). The bibliometric review also reflects the emerging partnerships, cross-disciplinary associations and thematic groups, providing an evidence-based base of the future studies. The implications of these findings to the policies, businesses and communities are practical. On the national level, there is limited regulation and protection of the tradition of ethnic food and needs international frameworks to be more recognized (24). Ethnic foods offer possibilities of improving cultural heritage, promoting local economies and boosting the identity of a community, as far as tourism and local development is concerned (25). More so, incorporation of traditional foods in the contemporary diets can help to promote the health, sustainability and cultural continuity (26). The paper will start with the construction of a conceptual frame work of sustainability and ethnic foods and place them on a cultural, nutritional and ecological context. It then reviews the applicability of ethnic cuisines in the modern context of issues of globalization, food security and sustainable consumption. The next section identifies the gaps of the research and the absence of integrated studies, which results in the research aims and key questions articulation. The bibliometry technique and results are then given in the paper, charting the research trends and thematic developments. Lastly, it comments on contributions to the field, practical implications of research on SEF to policy and practice and future research in the area.

Methodology

In this study, a bibliometric method was applied to identify publications on SEF published between 2014 and 2025 through the WOS database, using the search query (TITLE-ABS-KEY "Ethnic foods" or "National Foods" and "Traditional foods" and "Native foods") on 24th March 2025, the period 2014-2025 was selected for three primary reasons: i) The formal adoption of the sustainable Development Goals(SDGs) in 2015, which significantly accelerated sustainability-oriented food system research, ii) The emergence of interdisciplinary scholarship linking ethnicity, food systems and public health after 2014 and iii) The inclusion of pre-pandemic, pandemic and post-pandemic phases, enabling the examination of structural shifts in SEF research trajectories. Bibliometric research suggests that shorter time spans are more effective for identifying emerging trends (27). Bibliometric analysis is a theoretical method for mapping patterns, trends and research impacts, appropriate for managing high levels of scholarly information (28, 29). Bibliometric studies rely on Boolean logic to refine search results and filter irrelevant articles (30). The search resulted in a total of 1,797 records, which were subsequently analyzed and extracted from the WOS database in a plain text file format. This source is highly regarded for its reliability in bibliometric research, despite certain coverage limitations when compared to Scopus (31). First, the bibliometrix R package (version 4.4.3) was installed and loaded using RStudio. Second, the biblioshiny app was opened by entering the command library (bibliometrix) and launching the app with biblioshiny interface in the R console. Bibliometric analysis was conducted using the biblioshiny app, a web interface of the bibliometric tool offering many options to analyze the bibliography (32). To maintain citation metadata, author affiliations, keywords and abstracts necessary for bibliometric processing, records were downloaded in plain text format. This timeframe enabled the evaluation of pre-pandemic, pandemic and post-pandemic research trends, allowing the tracking of thematic changes in light of significant world events, including COVID-19. The PRISMA framework was applied to filter the raw data, ensuring systematic inclusion and exclusion of pertinent publications (33). Filtering involved removing duplicates, non-English publications and records unrelated to the sustainability aspects of ethnic/traditional foods, as shown in Figure 1. This selection ensured the quality, relevance and strength of the analyzed corpus and has been extensively applied to analyze sustainability issues in the food field, proving capable of tracing intellectual landscapes and research patterns (28).

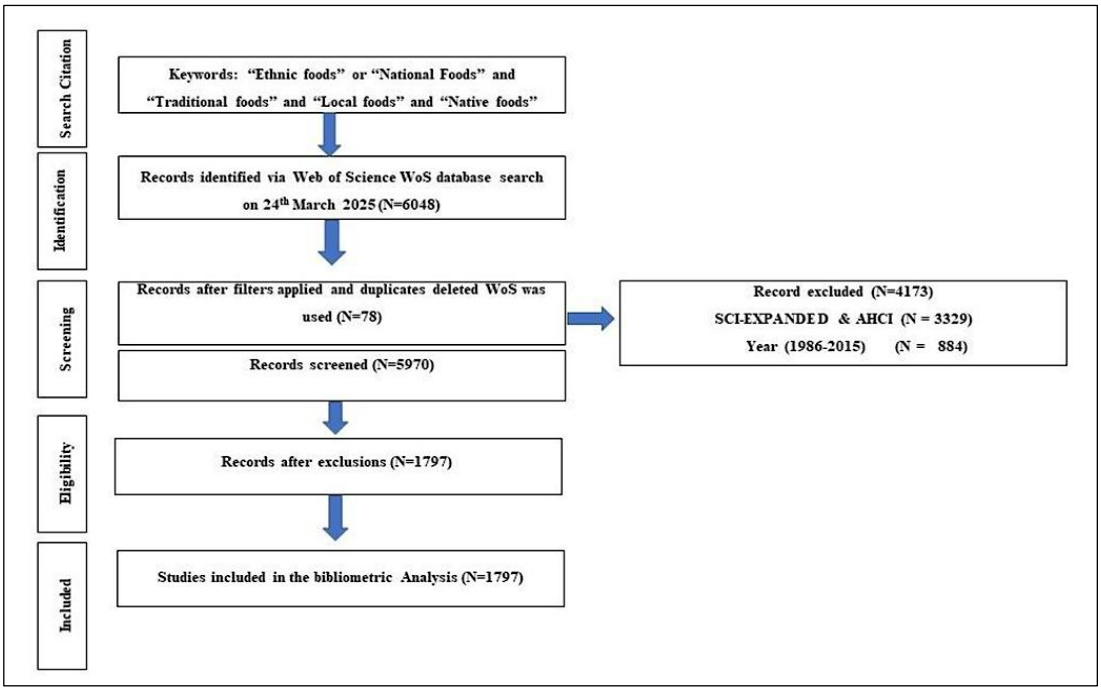

Figure 1: PRISMA Flow Diagram steps in the Bibliometric Research

Results

Data Filtering

This study examines and interprets the strength of keyword connections, their co-occurrences, temporal growth, centrality and density levels and the periods during which they achieved the highest citation counts. Similar bibliometric approaches have been widely used to analyze food-related sustainability topics, demonstrating their ability to map intellectual structures and research trends (17). The analysis evaluates the most productive countries and international partners in educational cooperation using various criteria. The study also explores the relationships between authors, particularly those with the highest publication counts, consistent with methods employed in earlier bibliometric studies on ethnic foods and food policy (34). A Sankey diagram, a common visualization tool in sustainable food bibliometrics, is used to investigate the relationships between authors, journals and keywords to identify knowledge flows (1). Articles focusing on the sustainability of ethnic foods are analyzed by ranking them according to citation counts, whereas the most influential journals are ranked and analyzed according to their publication output. This has been emphasized in prior studies to reveal journal dominance in food security (35) and food consumption debates (17, 36).

Descriptive Bibliometric Analysis

Table 1 presents data spanning 12 years (2014 to 2025) and shows a clearer perspective of the time frame within which the publications or documents were create and reviewed. Among the 1,797 documents, 645 unique journals are represented, indicating a broad journal distribution and diverse sources of publication with interdisciplinary coverage. This observation aligns with previous studies showing that sustainability food research encompasses health, agriculture and social sciences (37).

Table 1: Main Information about the Data Collection

Description	Results
Timespan	2014:2025
Sources (Journals)	645
Documents	1797
Document average age	5.53
Years on average since publication	149.5
Per-document average for citations	19.52
References	84248
Authors	7301
Single-authored documents	193
Multi-authored documents	1596
Collaboration Index[1]	5.32

Note: Collaboration Index[1] = Total authors of multi-authored articles/total multi-authored articles

The number of documents published over this period reflects the average research output over time. With an average age of 5.5 years, the dataset primarily consists of mid-to-recent publications. Each document has received an average of 20 citations, demonstrating a reasonable level of scholarly impact or recognition, consistent with bibliometric analyses reporting mid-level citation counts in sustainability-related food studies (38, 39). The large total number of references across all documents indicates thorough literature reviews and well-researched work. The sample includes 7,301 authors contributing to 1,797 papers, highlighting high researcher participation and confirming previous bibliometric findings that sustainable food research often involves multi-author contributions and international collaboration (40). Nearly half of the documents are single-authored, suggesting that solo research is uncommon in this field, a pattern similar to global bibliometric reviews of food consumption and ethnic food research (19).

Annual Scientific Production

Annual Publication Trend of Articles from 2014 to 2025

As shown in Figure 2, the data reveal a steady upward trend in the number of published articles between 2014 (110) and 2021 (228); hence, research interest in this field during the aforementioned period is evident. Significant

growth spurts were observed in 2017-2018 and 2019-2021. However, this trend over with time and currently, there is a noticeable decrease with the number of publications declining to 191 in 2022 and 139 in 2023. There was a slight recovery in 2024 with 162 articles; however, there was a significant decrease in 2025 with only 22 articles published. The total of 22 articles published by 2025 is due to the data collection cut-off date being March 24, 2025.

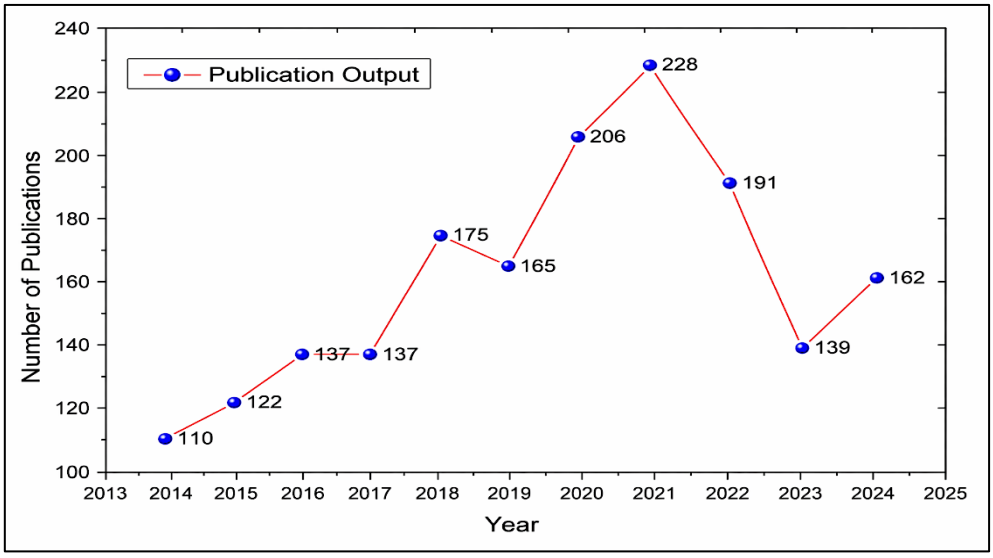

Figure 2: Years-wise Publication Output on Sustainable Ethnic Foods

Patterns of Citation by Publication year from 2014 to 2025

The year 2020 is the most cited [4,326] followed by 2014 [4,220], 2018 [4,042], 2016 [4,034] and 2021[4,089], indicating that these years were more productive. Between 2014 and 2021, the annual citation count remained consistently high, indicating a highly productive and scholarly period. However, citations declined sharply starting in 2022, with 1,850 citations in 2022, 966 in 2023 and 194 and 16 in 2024 and 2025, respectively. This decrease is expected because of natural delay in citation accumulation, as newer publications have had less time and exposure to be referenced. Overall, the data reflects a typical citation lifecycle, in which older works accumulate citations over time, whereas recent publications have not yet to reach their full citation potential, as shown in Table 2.

Annual Citation Trends

Table 2: Citation Trends by Year of Publication

R*	PY*	TC*
1	2014	4220
2	2015	3631
3	2016	4034
4	2017	3798
5	2018	4042
6	2019	3917
7	2020	4326
8	2021	4089
9	2022	1850
10	2023	966
11	2024	194
12	2025	16

Note: R*=Rank, PY*=Publication Year, TC*=Total Citation

Countries/Regions

The Country Collaboration Map in Figure 3 demonstrates global research partnerships between countries and highlights the internationalization of academic collaboration. The United States serves as the main hub, represented by a dark blue color and a dense network of linking lines, indicating a high

frequency of co-authored research papers with many countries across Europe, Asia, Africa and Oceania. It maintains significant collaborative relationships with the United Kingdom, Canada, Australia, Germany, China and India, reflecting a vibrant exchange of academic ideas across continents. Additionally, countries such as Brazil, South Africa and several in Southeast Asia and the Middle East exhibit strong international cooperation, although the connecting lines for these are thinner and lighter in color.

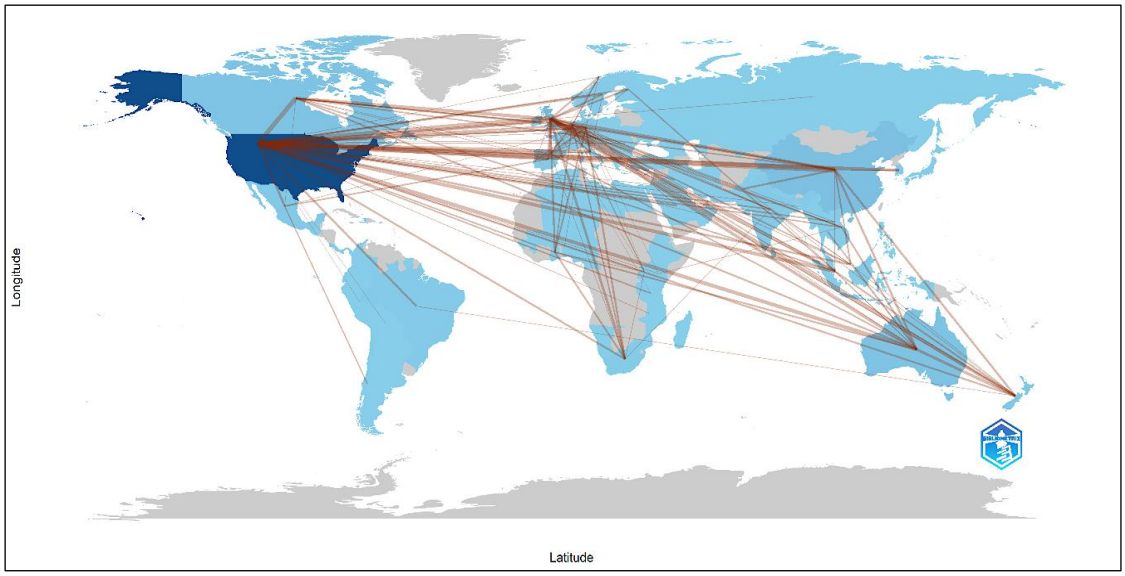

Figure 3: Collaboration World Map

Table 3 shows the differences between countries in terms of research production and international cooperation. The United States produces the most research (CR = 1024), most of which is produced in the country (SCP = 943), the level of multinational cooperation is quite low (MCP = 81) and the MCP ratio is very low (0.079). Although it has a higher output than the other, this small ratio reflects a structurally closed-system collaboration pattern. In contrast, Singapore, which generates fewer publications (CR = 21), has the highest degree of international engagement (MCP ratio = 0.667), indicating a high reliance on international research partners. Similarly, the collaboration intensities of New Zealand (0.478), the United Kingdom (0.409), Italy (0.375) and China (0.389) are relatively high compared to their aggregate production. At the institutional level, this concentration is further observed to be sharper. The United States has 1,035 total affiliations, far more than all other countries. The Universities of Minnesota (30 affiliations), North Carolina 29, Illinois 22, Michigan 17 and New York16, all demonstrate that SEF scholarship is concentrated in a rather small cohort of U.S. based institutions. Despite its high research productivity, the fact that major producers and institutional centralization have low MCP ratios implies that there is an inhomogeneous and weak global collaboration system. There is a relatively weak cross-regional integration especially with developing regions. This is a trend of a structurally concentrated system of knowledge rather than a globally distributed research system. Thus, the discipline exhibits a gap in collaboration, whereby there is a need for better South-South cooperation, extensive cross-cultural comparative studies and more geographically encompassing scholarly nexuses in SEF research.

Table 3: Most Influential Countries

CR*	A*	SCP*	MCP*	F*	MCP Ratio*
USA	1024	943	81	0.569	0.079
UK	110	65	45	0.061	0.409
China	90	55	35	0.050	0.389
Australia	60	40	20	0.033	0.333
Canada	56	43	13	0.031	0.232

Netherlands	37	25	12	0.020	0.324
Italy	24	15	9	0.013	0.375
New Zealand	23	12	11	0.012	0.478
Germany	22	14	8	0.012	0.364
Singapore	21	7	14	0.011	0.667

Note: CR* = Countries/Regions, C* - Clusters, A* =Articles, TA* = Total articles, SCP* = Single Country Publications, F* = Frequency, MCP* = Multiple Country Publications, MCP Ratio* = MCP/Articles, Freq: Articles/Publication.

Most Productive Authors

The 7,301 authors include the top 10 most productive authors in terms of publications. Berge JM from the University of Minnesota Medical School (USA), Nicolaou M from the Amsterdam Public Health Research Institute (Netherlands) and Yi SS from the NYU Grossman School of Medicine (USA) each published 13 papers, indicating similar academic impact. Table 4 shows that US-based researchers dominate this field, with six of the top ten authors affiliated with US institutions. Notably, Li Y from China and Chong YS from Singapore have strong regional presence and international influence, with 11 and 8 research articles respectively. The involvement of international researchers highlights global academic cooperation and knowledge production, whereas differences in citation counts reflect variations in research impact and recognition among individuals and organizations.

Table 4: The Most Productive Authors

AU*	TA*	CA*	FA*	CR*	TC*
Berge JM	13	University of Minnesota Medical School	2015	USA	389
Nicolaou M	13	Amsterdam Public Health Research Institute	2014	Netherlands	378
Yi SS	13	NYU Grossman School of Medicine	2017	USA	319
Neumark-Sztainer D	12	University of Minnesota	2014	USA	296
Li Y	11	Yunnan University	2014	China	275
Stronks K	11	Amsterdam Public Health Research Institute	2014	Netherlands	248
Popkin BM	10	University of North Carolina at Chapel Hill	2014	USA	246
Roux AVD	10	Drexel University	2014	United States	246
Auchincloss AH	8	Drexel University School of Public Health	2015	United States	237
Chong YS	8	KK Women's and Children's Hospital	2014	Singapore	233

Note: AU* = Authors, TA* = Total articles, CA* = Current affiliations, FA* = First articles, CR* = Countries/Regions, TC* = Total Citation.

Most Productive Journals by the Number of Publications

Among the top journals in this thematic area, the Journal of Racial and Ethnic Health Disparities has greatest number of publications (122 articles). Since its inception in 2014, it has also achieved the highest H-index of 49 (Table 5). It has a moderate impact factor of 3.2, but the JCI of 1.03 shows that its influence in the field is more than average. The second most prolific journal is the International Journal of Environmental Research and Public Health (IJERPH) with 61 articles. However, it is distinguished by having the highest total citations (1231 citations) and a strong H-index of 198 reflecting its immense impact. Its JCI of 0.55 is, however, comparatively low indicating a mixed resonance in its specific field. Other interesting journals high impact factors, such as Appetite [4.5] and Nutrition [6.4], have good citation records, making them important platforms for conducting powerful research. Although this publication is younger (formed in 2009), the performance of nutrients showed a excellent results, with 209 citations and a JCI of 1.04. England and Switzerland are also prominent geographically with numerous leading journals including, Appetite, Public Health Nutrition, BMC Public Health and Sustainability and so publishing ecosystems are strong in these countries. It is also worth noting that MDPI is a leading publishing company and has several high-output journals such as IJERPH, Nutrients and Sustainability.

Table 5: The Most Productive Journals by the Number of Publications

J*	I*	P*	CR*	TA*%	TC*	H-Index	IF(2025)[1]	FA*	JCI[2]
Journal of racial and ethnic health disparities	SSCI	Springer	United States	122(6.7)	1224	49	3.2	2014	1.03
International journal of environmental research and public health	SCIE	Multidisciplinary Digital Publishing Institute-(MDPI)	Switzerland	61(3.3)	1231	198	4.5	1991	0.55
Ethnicity and health	SCIE	Taylor and Francis ltd	England	53(2.9)	594	68	2	1996	1.18
Appetite	SCIE	Elsevier science ltd	England	47(2.6)	1398	178	4.5	1980	1.43
Public health nutrition	SCIE	Cambridge University Press	England	37(2)	732	164	3.1	1998	0.84
BMC public health	SCIE	Bio Med Central	England	31(1.7)	452	197	3.9	2001	1.10
Nutrients	SCIE	Multidisciplinary Digital Publishing Institute (MDPI)	Switzerland	30(1.6)	472	209	6.4	2009	1.04
British food journal	SCIE	Emerald Group Publishing Ltd.	England	27(1.5)	594	102	3.4	1899	1.04
Sustainability	SCIE	MDPI Open Access Publishing	Switzerland	27(1.5)	208	169	4.1	2009	0.68
Food culture and society	SSCI	Taylor and Francis Ltd.	England	22(1.2)	128	29	1.2	1998	0.52

Note: J* - Journals, I* = Indexes, P* = Publishers, CR* = Countries/Regions, TA* = total articles, TC* = total citations, FA* = first articles.
Source: Web of Science Master Journal List (accessed on 5 April 2025). JCI is a measure of the mean value of the Category Normalized Citation Impact (CNCI) of citable items published by a journal over the past three years.

Conversely, journals with lower outputs, such as Food, Culture and Society, although with 22 articles and an impact factor, are still involved in a niche a segment of the cultural aspects of food, as seen in its SSCI indexing and its specific focus. In general, the data showed a rich journal environment with different rates of productivity and impact, which provided an opportunity to select a publication according to the wide spectrum of broad or very specific journals in the field of public health, nutrition and cultural studies.

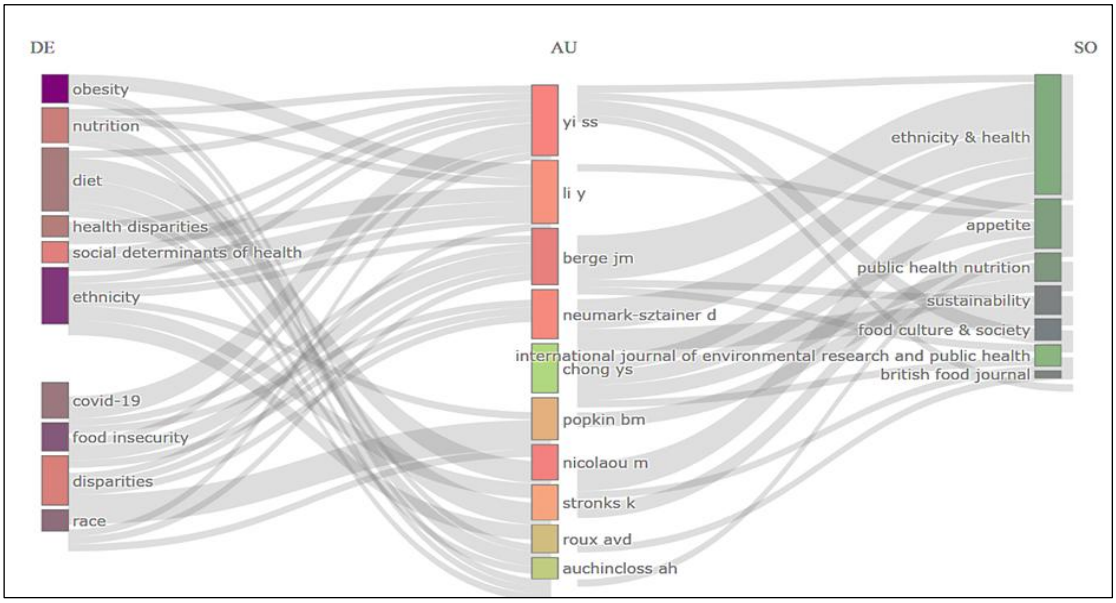

Figure 4: Sankey Diagram of Author, Journal and Keywords

Sankey Diagram of Author, Journal and Keywords

The Sankey diagram shown in three dimensions in Figure 4, visualizes the connections among keywords, authors and journals, which are positioned on the left, right and center respectively. Journals such as Ethnicity and Health, Appetite, Public Health Nutrition and the International Journal of Environmental Research and Public Health serve as primary outlets for publishing, facilitating the dissemination of research across a variety of interrelated topics. For example, Ethnicity and Health tend to concentrate more on health disparities, race and ethnicity, as compared to Appetite and Public Health Nutrition, which are more in line with dieting and nutrition research.

Keywords with Strongest links

The most salient theme (A = 117, betweenness centrality = 225.369) that suggests its core position in the connection of different research domains is obesity. The next term, which was given a high frequency (A = 92) and centrality, was ethnicity, which is relevant (particularly in relation to health). Other factors that have a strong and significant presence are "food insecurity" and "race" which are often repeated and hold influential network positions. The fifth most connected node is "COVID-19" with a much lower betweenness (44.801) meaning that it is the least related to other core topics even though it is a popular theme. Keywords such as diet, health disparities and nutrition appear to be highly centralized and support their relevance to the discussion of the topic of SEF and of public health issues. Social determinants of health are less common, but possess a lower centrality value, which does not imply that it is a central idea. In general, three major themes in the scholarly discourse include "obesity," "ethnicity," and "food insecurity," where the network metrics reveal that the three themes strongly depict their relationship and impact as demonstrated in Table 6, respectively.

Table 6: Keywords with Strongest links

C*	K*	A*	Betweenness	Closeness
1	Obesity	117	225.369	0.014
4	Ethnicity	92	176.788	0.014
2	Food insecurity	82	126.921	0.013
4	Race	73	111.042	0.013
2	Covid-19	70	44.801	0.012
1	Diet	69	103.882	0.013
4	Health disparities	66	80.072	0.013
1	Nutrition	62	119.422	0.013
4	Disparities	48	70.737	0.012
2	Social determinants of health	45	29.978	0.011

Note: C* = Clusters, K* = Keywords, A* = Articles, TLS* = Total Link Strength, AP* = Years on average since publication.

Keyword Co-occurrence Network Map

The network visualization maps displayed in Figure 5 illustrate, that red cluster represents the dimension of health and nutritional transition of SEF research, where keywords such as obesity, diet, nutrition and health disparities become the most important nodes. This cluster relates to the interaction between traditional dietary patterns and modernization, migration and globalization. SEF research is targeted at dietary shifts that are culturally embedded and their consequences on the risk of chronic diseases, in contrast to mainstream nutrition research. The purple cluster focuses on cultural identity and structural inequality and includes terms such as ethnicity, race, migration and disparities. Such a group characterizes the role of ethnic food systems as identity markers, social identities and a transfer of intergenerational knowledge. This cluster, in contrast to general food and the health research, places food in a socio-political and racialized context, focusing on the intersectionality between preserving culture and inequality of the system. The blue cluster covers all the occupations of food access and structural determinants, including the keywords: food insecurity, social determinants of health and access. This thematic area indicates the conceptualization of food insecurity within SEF literature as not merely a lack of access to food but rather access to culturally relevant and traditional forms of food. The cluster demonstrates that

marginalized ethnic groups have uncharacteristic SEF concerns regarding structural barriers. The green cluster denotes the sustainability and environmental interface of ethnic food systems, including the terms related to climate change, resources and conservation. This cluster demonstrates the ecological aspect of SEF research, which connects traditional agricultural methods with biodiversity conservation and resilience to climate, with the goal of sustainable development. This incorporation of the environment and culture distinguishes the work of SEF scholarship and traditional health-oriented food studies. The orange cluster is connected with tourism, the commodification of authenticity and heritage and includes the following keywords: tourism, authenticity and satisfaction. This thematic grouping shows how ethnic foods work in cultural economies striking a balance between cultural heritage conservation and market inclusion. It highlights the importance of SEF in sustainable local development and destination branding.

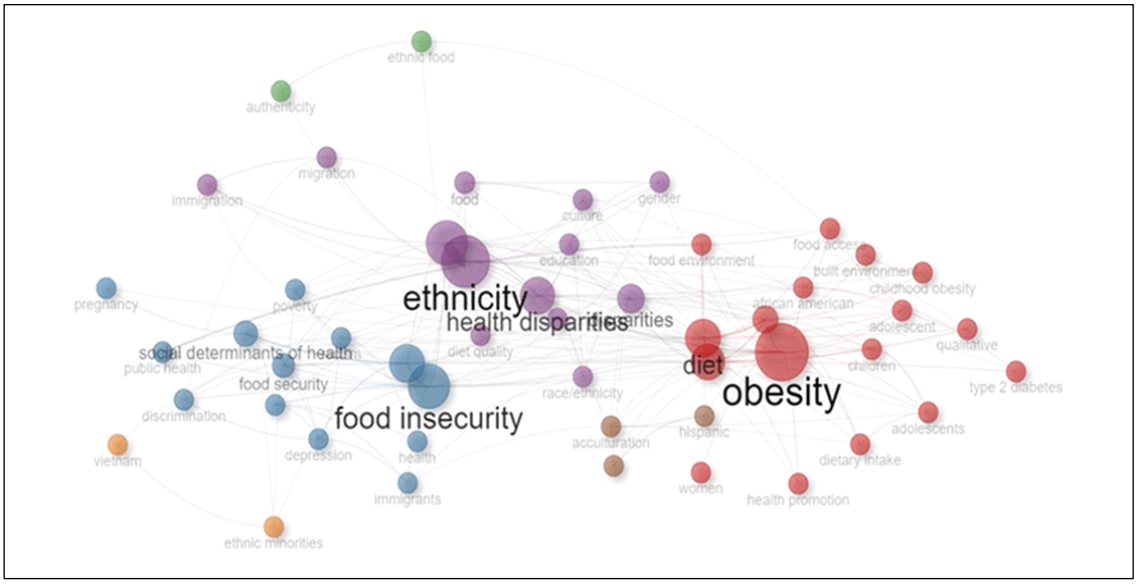

Figure 5: Keyword Co-occurrence Network Map

Keyword Trend Topics

Trend analysis of major research themes between 2014 and 2024, as demonstrated in Figure 6, shows the introduction, existence and prevalence of different terms over the years. The plot on the timeline indicates that each term is placed according to its appearance in the literature with the larger blue nodes indicating greater frequency. Between 2014 and 2017, research focused mostly on television, globalization, parents and focus groups. The focus of the research changed with time to topics of health and social equity. The keywords diet, obesity, ethnicity, migration and health disparities became popular between 2018 and 2020. It is noted that research activity increased significantly around 2020-2022 and the use of terms such as COVID-19, COVID-19 pandemic, racism, discrimination, mental health and food insecurity is quite high which definitely represents global and societal concerns worsened by the pandemic. The thematic trends indicate the extension of the discipline conceptually. Mental health, racism and climate change as such, especially post-2020, point towards a wider scope of SEF research on socio-environmental and structural aspects. The empirical evidence of this post-2020 thematic change is based on the analysis of keywords, which indicates that the frequency and time persistence of terms such as racism, discrimination, mental health and food insecurity have grown significantly after 2020. The expansion of the size of the nodes and their further emergence in the following years are signs that the transition did not emerged based on the interpretation of the socio political context but directly based on the results of bibliometric co-occurrence and temporal mapping. Themes in the period between 2022 and 2024 are also aging, refugees and structural racism, which imply that thematic diversification will continue. The continuous existence of multiple keywords up to

2024 is an indicator of consolidation and not a short-term trend. This extended orientation links ethnic food system with their sustainability transitions, climate resilience, biodiversity conservation and community wellbeing.

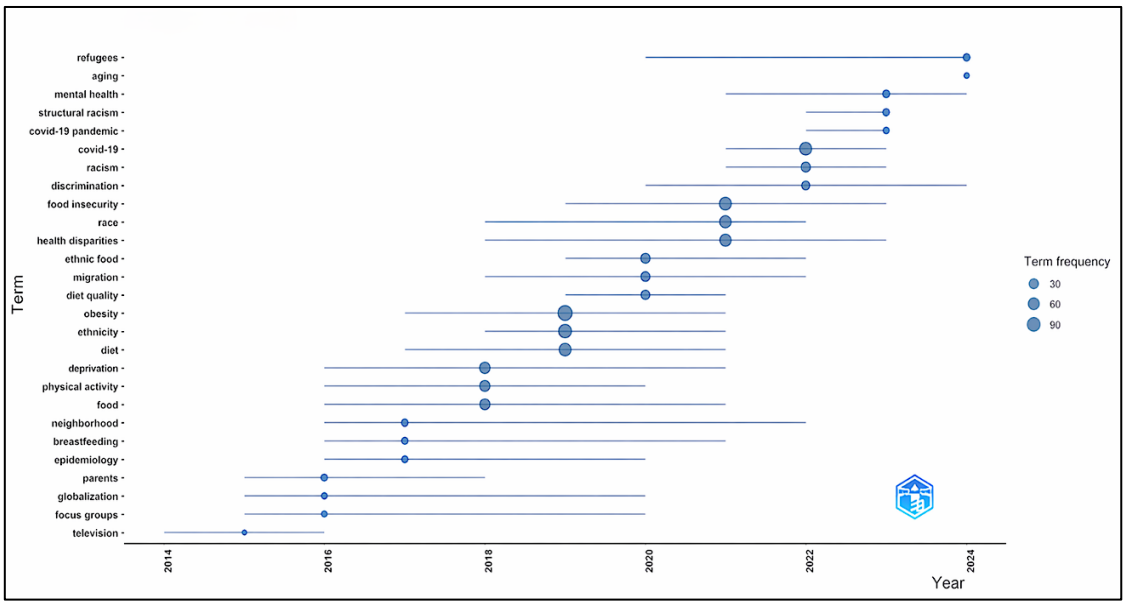

Figure 6: Keyword Trend Topics

Keywords Thematic Map

The thematic structure of the research field divides thematic areas associated with their level of enlargement (density) and significance (centrality), as presented in Figure 7. The upper-right quadrant of Motor Themes encompasses topics such as obesity, physical activity, the United States, health, risk and prevalence, indicating that these subjects are both highly significant and extensively developed within the field. The themes are the main driving forces of the field indicating their maturity and main role in further research. The basic themes quadrant (lower right), comprises food, impact, perceptions, attitudes, models and experiences. These areas are central to the research field, but poorly developed, meaning that they are well-researched, but demand more conceptual and methodological progress to be more specialized. The niche themes quadrant (top left) has knowledge, management, resources, climate change, diversity and conservation. These themes are highly developed and peripheral, meaning that there is a high level of specialization and minimal links to the larger area. Although they show a high level of internal coherence, they lack centrality and this shows that they are peripheral to the main research agenda. Lastly, the lower left quadrant that was either emerging or declining included satisfaction, tourism and authenticity. Not only are the themes of low density and low centrality, indicating that they are either locales of diminishing scholarly interest or areas of inquiry undergoing active research development. Thematically-based density and centrality pointers based on the thematic map were used to identify research gaps in a systematic manner. Themes in the Basic quadrant (e.g., food, perceptions, attitudes, models and experiences) demonstrate high centrality and relatively lower developmental density, indicating conceptual underdevelopment despite their structural significance. These areas are priority areas for theoretical perfection and methodological improvement. Similarly, the lack of consolidation in the larger intellectual framework of SEF research is shown by the fact that themes in the Emerging or Declining quadrant such as tourism, authenticity and satisfaction do not show any consolidation. Their peripheral positioning suggests opportunities for deeper empirical, cross-cultural and longitudinal investigations to reinforce integration in the context of sustainability.

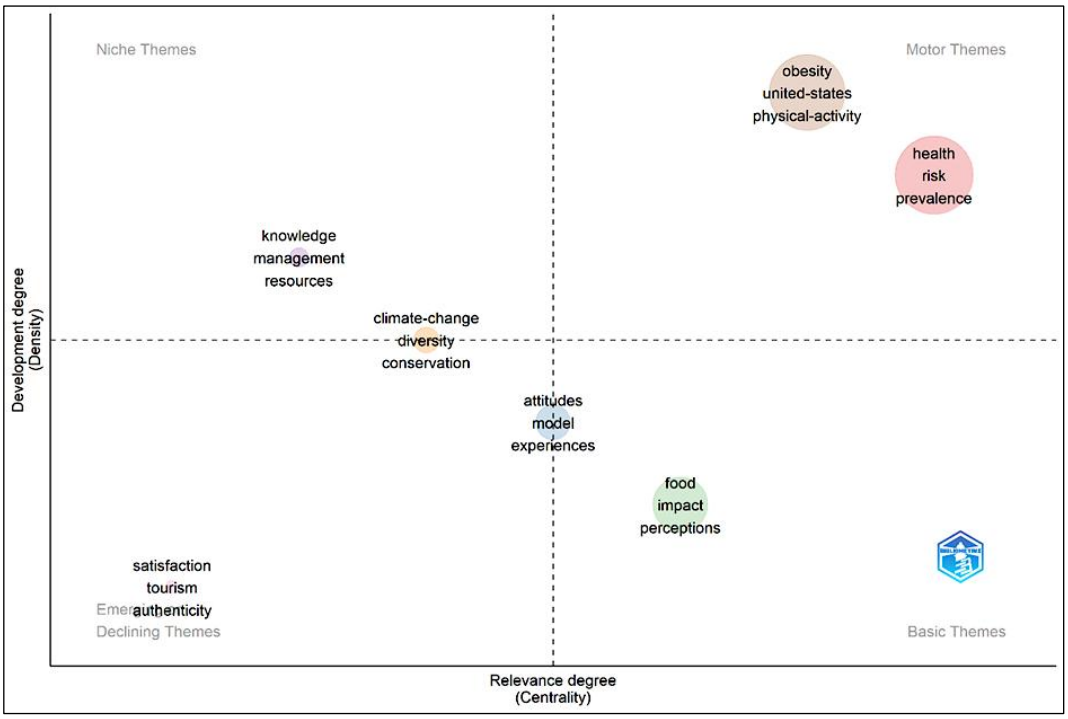

Figure 7: Keywords Thematic Map

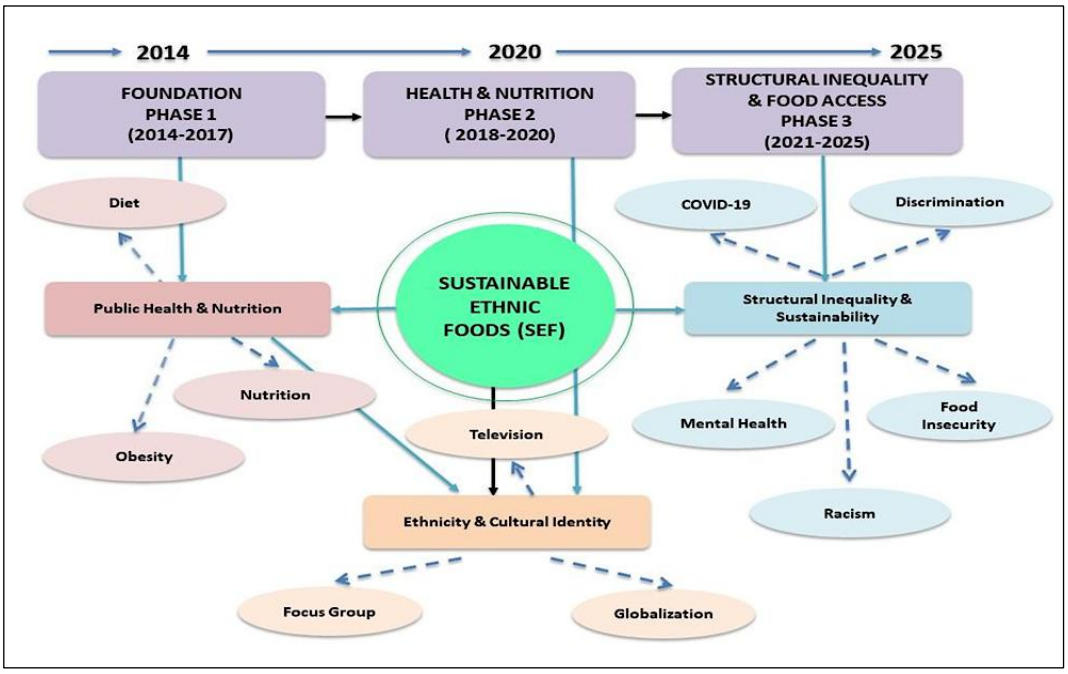

Figure 8: Thematic Evolution and Structural Expansion of Sustainable Ethnic Foods (2014-2025)

Schematic Diagram of the Key Trends

The schematic model Figure 8, Presents a schematic model of the longitudinal development of sustainable ethnic foods (SEF) research between 2014 and 2025 with three key periods of development and thematic interdependencies. Between 2014 and 2017, the foundational phase concentrated on public health and nutrition, including diet, nutrition, obesity and media influences, predominantly using qualitative research (including focus groups); however, ethnicity and cultural identity began to emerge. By the period between 2018 and 2020, the issues of health and nutrition became more centralized; associating obesity, diet and nutrition more closely and ethnicity and cultural identity became more significant as food practices are linked to migration and social belonging, which has shifted the analysis of health disparities to a deeper level. From 2021

to 2025, the research expanded to include structural issues such as COVID-19, discrimination, racism, food insecurity and mental health shifting attention to systemic factors influencing food access. It also demonstrates how SEF research advances cultural heritage, health outcomes and socio-environmental conditions in such a way that it is no longer limited to particular health issues but focuses on the multi-faceted structural determinants that impact sustainable systems of ethnic food.

Discussion

The findings indicate that the number of publications on SEF is steadily rising during the last decade as the whole world is becoming more concerned with sustainability, the impact on public health and the preservation of cultural heritage (41). The discipline is known to be highly thematic in terms of its focus on obesity, diet, nutrition, health disparities, ethnicity and food insecurity, indicating that SEF research has largely been involved in research in health outcomes and social equity, a trend similarly observed in broader food systems and public health scholarship (42). Despite any overlapping of the themes like obesity and food insecurity with the larger literature on public health, SEF scholarship has three characteristics. First, cultural embeddedness where the eating habits are explored using ethnic identity, migration patterns and intergenerational knowledge systems intergenerational knowledge systems (43). Second, culturally suitable food access, where food insecurity is not just a conceptualization of caloric insufficiency, but is a limited access to foods of cultural significance (44). Third, heritage-sustainability coordination, wherein a focus is made on environmental management being examined in parallel with the conservation of culinary customs and indigenous practices related to biodiversity (45). All these dimensions make SEF research stand in contrast to the traditional nutrition studies, in which researchers study dietary intake and prevalence of diseases as the main aspects. In contrast to mainstream nutrition scholarship, SEF research contextualizes traditional food systems (in terms of socio-political and structural contexts). The keywords that outline how food is a marker of cultural identity, social belonging and systemic inequality include social determinants of health, race, migration and disparities. Within this view, food insecurity gets re-formulated outside of availability to culturally acceptable access of marginalized communities. Temporal mapping is also an indication of conceptual expansion of the field. Analysis of the keyword trends reveals that the frequency and persistence of such terms as racism, discrimination, mental health and food insecurity have significantly increased in 2020-2022, which is indicated by the increased size of the nodes and the duration of its presence. This trend suggests that there is a quantifiable change in favour of structural and socio-environmental aspects of SEF study. The presence of the themes of climate change, resilience and community well-being indicates that the field is becoming more and more intertwined in terms of ethnic food systems relating to the sustainability transitions. Also, the appearance of the tourist, authenticity and heritage related topics demonstrates the role of ethnic cuisines in the cultural economies and the sustainable local development. In the geographical approach, the production of research is still mainly focused on the United States, the United Kingdom and even China, with the smaller countries like Singapore and New Zealand showing a relatively higher intensity of international cooperation. The trend indicates that there is structural imbalance in the production of knowledge as the world becomes increasingly more engaged. Structured bibliometric lens was used to identify gaps in research such as a) low density basic themes implying conceptual immaturity; b) marginal niche themes implying lack of integration within the mainstream intellectual framework; c) low MCP ratios among leading producers; and d) new clusters that were not yet perfectly consolidated. These results indicate that there is a necessity to better integrate theories, carry out cross-regional comparative studies and empirically test newly discovered themes over a long period.

Limitations of the Study

This study has several limitations. First, the data were obtained within the Web of Science database. Although Scopus provides wider journal coverage, Web of Science was chosen based on its structured citation indexing scheme and standardized metadata which strengthen its reliability in bibliometric mapping. However, dependency on one database can provide selection bias as it can exclude journals specific to the region or those that

are not indexed. Therefore, the findings reflect current trends in research published in journals indexed in Web of Science and might not be representative of other published research in databases. Second, the used bibliometric methodology focuses on quantitative publication trends and, citation statistics, thus failing to reflect the qualitative richness and contextual detail of the research terms. Third, the research was limited to publications in English; therefore, it might have missed valuable knowledge of the research that can be published in different languages. Finally, because the data collection date was March 2025, the latest publications were not considered, which can affect the reflection of the latest trends.

Future Research Directions

Future research projects can expand this sample to include a variety of databases including Scopus and Dimensions to obtain a more inclusive coverage. Researchers are advised to conduct in-depth content or thematic analyses to supplement bibliometric results and improve the awareness of the cultural and social aspects of SEF. Comparative and cross-national research might explore the role played by ethnic foods in the sustainability of different regions. Moreover, future research may focus on how digital media, globalization and climate change affect the development of ethnic food systems. Incorporating concepts from tourism, health and environmental science will further contribute to our understanding.

Conclusion

This study presents a thorough bibliometric mapping of the SEF literature from 2014-2025, which provides clear insights into the intellectual structure, development of its themes and patterns of international cooperation. The results indicate that it is a continuously growing field with a strong grounding in public health and social equity issues, specifically obesity, ethnicity and food insecurity. SEF scholarship can be characterized by unique features, such as cultural embeddedness, a determined focus on culturally adequate access to food and a combination of heritage and environmental sustainability. A temporal and thematic analysis demonstrates that after 2020, the field will focus on the observable growth of the scope of structural and socio-environmental aspects, such as racism, mental health, climate resilience and sustainability transitions. Although interdisciplinary engagement is on the rise, the field is still geographically concentrated and has uneven networks of international collaboration. This study identifies underdeveloped themes, peripheral clusters and the lack of cross-regional integration; therefore, greater theoretical consolidation, comparative research and long-term empirical investigation are needed. In general, bibliometric data demonstrate that SEF is a promising but strategically significant field concerning the connection between cultural heritage, community health and the transformation of a sustainable food system.

Abbreviations

JCI: Journal Citation Indicator, MCP: Multiple Country Publications, PRISMA: Preferred Reporting Items for Systematic Reviews and Meta-Analyses, SCP: Single Country Publications, SEF: Sustainable Ethnic Foods, TLS: Total Link Strength, WOS: Web of Science.

Acknowledgement

The authors are very grateful to the institutions, research communities and databases that enabled access to bibliometric resources and literature, especially Web of Science. The developers of the Bibliometrix R package and the Biblioshiny interface are particularly mentioned because the tools they created played a central role in carrying out this study.

Author Contributions

R Jennifer: conceptualization, data collection, data analysis, bibliometric analysis (sankey diagram, network maps), interpretation, writing- draft preparation, review and editing. G Parimalarani: supervision, methodology and findings validation, critical revision.

Conflict of Interest

The authors have none of the conflicts of interest with the publication of this paper.

Data Availability

The present study can be provided with a request from the Web of Science Core Collection. The authors can also provide their academic purposes with processed datasets and visual outputs (e.g. Excel files and diagrams).

Declaration of Artificial Intelligence (AI) Assistance

The authors declare that generative AI and AI-assisted tools were employed solely for language refinement during the preparation of this manuscript. Specifically, Paper pal was utilized to verify grammar, enhance clarity and improve the quality of academic writing. No AI tools were engaged in generating ideas, conducting analysis, interpreting results, or composing substantive content. The authors reviewed, validated and approved all revisions to ensure accuracy, originality and academic integrity.

Ethics Approval

Not Applicable.

Funding

None.

References

1. Stein AJ, Santini F. The sustainability of "local" food: a review for policy-makers. Review of Agricultural, Food and Environmental Studies. 2022;103(1):77-89. https://doi.org/10.1007/s41130-021-00148-w
2. Pawlak-Lemańska K, Borusiak B, Sikorska E, editors. Sustainable Food: Production and Consumption Perspectives. PUEB Press. Poznań University of Economics and Business. 2024. https://doi.org/10.18559/978-83-8211-209-2
3. Feldmann C, Hamm U. Consumers' perceptions and preferences for local food: A review. Food quality and preference. 2015;40:152-164. https://doi.org/10.1016/j.foodqual.2014.09.014
4. Troncoso-Pantoja C, Cáceres-Rodríguez P, Amaya-Placencia A, Lataste-Quintana C, Valenzuela R. Exploring the Meanings of Food Sustainability: An Interpretive Phenomenological Analysis. Sustainability (Switzerland). 2023;15(18):1-14. https://doi.org/10.3390/su151813548
5. Djalal M, Wangdi JT, Dirpan A, *et al*. Traditional Indonesian food: A bibliometric review from 2013-2022. Canrea Journal: Food Technology, Nutritions and Culinary Journal. 2022;5(2):172-82. https://doi.org/10.20956/canrea.v5i2.736
6. Kwon DY. What is ethnic food? Journal of Ethnic Foods. 2015;2(1):1. https://doi.org/10.1016/J.JEF.2015.02.001.
7. Sarkar P, Lohith KDH, Dhumal C, Panigrahi SS, Choudhary R. Traditional and ayurvedic foods of Indian origin. Journal of Ethnic Foods. 2015;2(3):97-109. https://doi.org/10.1016/j.jef.2015.08.003
8. Tomić M, Deronja K, Tudor Kalit M, Mesić Ž. Consumers' attitudes towards ethnic food consumption. Journal of Central European Agriculture. 2018;19(2):349-67. https://doi.org/10.5513/JCEA01/19.2.1992
9. Trichopoulou A, Vasilopoulou E, Georga K, Soukara S, Dilis V. Traditional foods: Why and how to sustain them. Trends in Food Science and Technology. 2006;17(9):498-504. https://doi.org/10.1016/j.tifs.2006.03.005
10. Das M, Ojha AK, Sarmah P, Gogoi D, Dolma KG, Majumdar T, Hazarika SC, Modi D, Chowdhury G, Konwar C, Nath R. Ethnic foods of Northeast India: insight into the light of food safety. BMC Public Health. 2024;24(1):3258. https://doi.org/10.1186/s12889-024-20672-w
11. Sengel T, Karagoz A, Cetin G, Dincer FI, Ertugral SM, Balik M. Tourists' approach to local food. Procedia-Social and Behavioral Sciences. 2015;195:429-437. https://doi.org/10.1016/j.sbspro.2015.06.485
12. Buyruk L, Aykaç E. Bibliometric Analysis of Researches on Street Food. Journal of Tourism and Gastronomy Studies. 2021;9(2):660-73. https://doi.org/10.21325/jotags.2021.808
13. Caetano G, Christino JMM, Noronha ALS, Figueiredo LHS. Gastronomic Consumption of Local Foods and Their Drivers: A Bibliometric Analysis. Journal of Quality Assurance in Hospitality and Tourism. 2025;26(3):576-601. https://doi.org/10.1080/1528008X.2023.2254001
14. Badu-Baiden F, Kim S (Sam), Otoo FE, King B. International tourists' local African food consumption. Tourism Review. 2022;77(5):1333-48. https://doi.org/10.1108/TR-01-2022-0013
15. Wargadalem FR, Nasyaya A, Santoso AD. A bibliometric analysis of Indonesian ethnic food studies. Canrea Journal: Food Technology, Nutritions and Culinary Journal. 2024;7(2):143-161. https://doi.org/10.20956/canrea.v7i2.1060
16. Shukla A. Ethnic food culture of Chhattisgarh state of India. Journal of Ethnic Foods. 2021;8(1):28. https://doi.org/10.1186/s42779-021-00103-6
17. Kristia K, Kovács S, Bács Z, Rabbi MF. A bibliometric analysis of sustainable food consumption: historical evolution, dominant topics and trends. Sustainability.2023;15(11):8998. https://doi.org/10.3390/su15118998
18. Li J, Song W. Food Security Review Based on Bibliometrics from 1991 to 2021. Foods. 2022;11(23):1-15. https://doi.org/10.3390/foods11233915
19. Beciu S, Arghiroiu GA, Bobeică M. From Origins to Trends: A Bibliometric Examination of Ethical Food Consumption. Foods. 2024;13(13); 2048. https://doi.org/10.3390/foods13132048
20. Zhong Q, Wang L, Cui S. Urban food systems: A bibliometric review from 1991 to 2020. Foods. 2021;10(3):662. https://doi.org/10.3390/foods10030662
21. Lee JH, Hwang J, Mustapha A. Popular ethnic foods in the United States: a historical and safety perspective. Comprehensive Reviews in Food Science and Food Safety.2014;13(1):2-17. https://doi.org/10.1111/1541-4337.12044
22. Öğretmenoğlu M, Göktepe S, Atsız O. A bibliometric analysis of food studies: Evidence from British Food Journal. Journal of Multidisciplinary Academic Tourism.2022;7(1):67-79. https://doi.org/10.31822/jomat.2022-7-1-67
23. Guerrero L, Guàrdia MD, Xicola J, Verbeke W, Vanhonacker F, Zakowska-Biemans S, Sajdakowska

M, Sulmont-Rossé C, Issanchou S, Contel M, Scalvedi ML. Consumer-driven definition of traditional food products and innovation in traditional foods. A qualitative cross-cultural study. Appetite. 2009;52(2):345-54. https://doi.org/10.1016/j.appet.2008.11.008
24. Austdal H. Common legal issues for traditional and ethnic food. In: Delcour JA, Poutanen K, editors. Nutritional and health aspects of food in Nordic countries. London: Academic Press; 2018. p.227-244. https://doi.org/10.1016/B978-0-12-809416-7.00010-X.
25. Murcott A. The cultural significance of food and eating. Proceedings of the Nutrition Society. 1982;41(2):203-10. https://doi.org/10.1079/PNS19820031
26. Laryea D, Akoto EY, Oduro I, Appaw WO. Consumer perception of traditional foods in Ghana: A case-study in Kumasi and Sekondi. Nutrition & Food Science.2016;46(1):96-107. https://doi.org/10.1108/NFS-05-2015-0051
27. Chen H, Mehra A, Tasselli S, Borgatti SP. Network Dynamics and Organizations: A Review and Research Agenda. J Manage. 2022;48(6):1602-60. https://doi.org/10.1177/01492063211063218
28. Donthu N, Kumar S, Mukherjee D, Pandey N, Lim WM. How to conduct a bibliometric analysis: An overview and guidelines. Journal of business research. 2021;133:285-296. https://doi.org/10.1016/j.jbusres.2021.04.070
29. Passas I. Bibliometric Analysis: The Main Steps. Encyclopedia.2024;4(2):1014-25. https://doi.org/10.3390/encyclopedia4020065
30. Snyder H. Literature review as a research methodology: An overview and guidelines. Journal of business research. 2019;104:333-9. https://doi.org/10.1016/j.jbusres.2019.07.039
31. Mongeon P, Paul-Hus A. The journal coverage of Web of Science and Scopus: a comparative analysis. Scientometrics. 2016;106(1):213-28. https://doi.org/10.1007/s11192-015-1765-5
32. Aria M, Cuccurullo C. bibliometrix: An R-tool for comprehensive science mapping analysis. Journal of Informetrics. 2017;11(4):959-75. https://doi.org/10.1016/j.joi.2017.08.007
33. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, Shamseer L, Tetzlaff JM, Akl EA, Brennan SE, Chou R. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ. 2021;372. https://doi.org/10.1136/bmj.n71
34. Putra AN. Literature review of food tourism, culinary tourism and gastronomy tourism. Journal of Innovation Research and Knowledge. 2021;1(4): 517-26. https://doi.org/10.53625/jirk.v1i4.319
35. Reddy N S, Fukey LN, Wankhar V. Ethnic food: the food way forward. Electrochemical Society Transactions. 2022;107(1):13547-13554. https://doi.org/10.1149/10701.13547ecst
36. Rašan D, Ažić ML. Mapping gastronomy tourism research: Literature review. Ekonomski vjesnik/Econviews-Review of Contemporary Business, Entrepreneurship and Economic Issues. 2024;37(1):181-202. https://doi.org/10.51680/ev.37.1.13
37. Qomara AS, Noer LR. Global Trends in Organic Food Research: A Bibliometric Analysis. Jurnal Indonesia Sosial Teknologi. 2025;6(3):1158-1172. https://doi.org/10.59141/jist.v6i3.8829
38. Okumus B. Food tourism research: a perspective article. Tourism Review. 2021;76(1):38-42. https://doi.org/10.1108/TR-11-2019-0450
39. Sultana S, Barman B, Singh R, Koovalamkadu Velayudhan P. Mapping the research landscape: a bibliometric analysis of organic food products and their marketing challenges. Discover Sustainability. 2025;6(1):856. https://doi.org/10.1007/s43621-025-01306-6
40. Şimşek EK, Kara M, Kalıpçı MB, Eren R. Sustainability and the food industry: a bibliometric analysis. Sustainability. 2024;16(7):3070. https://doi.org/10.3390/su16073070
41. Hoang AD. Evaluating bibliometrics reviews: A practical guide for peer review and critical reading. Evaluation Review. 2025;49(6):1074-102. https://doi.org/10.1177/0193841X251336839
42. Clapp J, Moseley WG. This food crisis is different: COVID-19 and the fragility of the neoliberal food security order. Journal of Peasant Studies. 2020;47(7):1393-417. https://doi.org/10.1080/03066150.2020.1823838
43. Mintz SW, Du Bois CM. The anthropology of food and eating. Annual review of anthropology. 2002;31(1):99-119. https://doi.org/10.1146/annurev.anthro.32.032702.131011
44. Power EM. Conceptualizing food security for Aboriginal people in Canada. Canadian journal of public health. 2008;99(2):95-7. https://doi.org/10.1007/BF03405452
45. Pretty J, Bharucha ZP. Sustainable intensification in agricultural systems. Annals of Botany. 2014;114(8):1571-1596. https://doi.org/10.1093/aob/mcu205

How to Cite: Jennifer R, Parimalarani G. Mapping the Flavours of Sustainability: A Bibliometric Analysis of Ethnic Foods. Int Res J Multidiscip Scope. 2026; 7(2): 1604-1619.
DOI: 10.47857/irjms.2026.v07i02.09111