



## Agritourism: A Bibliometric Insight into Sustainability and Rural Development

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### ABSTRACT

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Agritourism has increasingly attracted scholarly interest due to its potential to foster sustainable rural development. However, related studies are scattered and lack coverage of study trends and topics. The study focuses on the analysis of the keyword trends and structures of topics in the field with the help of Scopus and Web of Science data. A total of 826 peer-reviewed articles were analyzed, demonstrating that each article had an average of 14.4 citations, an annual publication growth rate of 17.29%, and an international co-authorship rate of 9.09% over time. Bibliometrix (R package) was used to conduct keyword co-occurrence analysis, co-authorship network, and thematic evolution mapping. These findings show that four thematic clusters are outlined, such as sustainable development and rural spaces, ecosystems and agriculture, governance and policy frameworks, and visitor experience and marketing. These groupings include important areas of rural tourism, conservation of biodiversity, response to climate change, agricultural policy, innovation in rural development and cultural experiences of the visitors. Furthermore, co-authorship analysis highlighted important clusters of international collaboration, with Italy (103 articles, 2848 citations) and China (175 articles, 2664 citations) emerging as the leading contributors. The analysis of the evolution of the topic shows that the research on agritourism has gradually shifted from traditional topics such as rural tourism and sustainable development to emerging topics such as circular economy, social innovation and public health. The results provided a landscape of agritourism, the interdisciplinary and international cooperation aspects, gaps and research opportunities on long-term tourism development.

## 1. INTRODUCTION

Agritourism has gained increasing academic and policy attention as a multifaceted strategy that bridges agriculture, tourism, and rural development [1]. Initially seen as farm-based tourism activities, agritourism has evolved into an entire concept which stimulates economic growth through diversification and supports preservation of culture and environment with simultaneous creation of resilient and sustainable communities [2]. The worldwide expansion of agritourism offers a promising solution to address population and income decline of farming sectors and socio-economic marginalization in rural regions [3, 4].

Furthermore, the Farm Practices Survey 2023 demonstrates that farmers are becoming more knowledgeable about environmental issues. The survey results indicate that 83% of participants view the program positively for business purposes and 73% show environmental concern for emission reduction. However, according to the survey data, only 50% of respondents identified profitability as a vital motivation despite substantial variations occurring between different farming operations. This suggests that the increase in environmental awareness indicates the need for specific policy

incentives between environmental goals and financial capacity suitable for sustainable agricultural development [5]. For example, among grazing livestock (LFA) farmers, only 30% reported being motivated by profit, while grazing lowland farmers accounted for 38%. Farmer economic motivation displays more strength among livestock and poultry specialists (66%) and dairy producers (65%), as well as mixed livestock operators (60%) when compared with grazing livestock and grazing lowland farmers. A substantial number of farmers recognize environmental sustainability's importance yet profit-related perceptions about it vary among them [6]. The evidence shows the necessity for businesses to employ complementary strategies including agritourism, which connects environmental responsibility and business sustainability.

Besides, between mass tourism and agritourism there is a distinction because agritourism creates community-based small-scale operations which align with sustainable principles [7]. This initiative drives both the development of local businesses and showcases rural scenery as well as displaying historical sites and maintains different farming methods [8]. This in turn contributes to rural vitality by strengthening social cohesion, maintaining multifunctional land use, and attracting

both domestic and international visitors seeking authentic and immersive experiences [9].

From a sustainability perspective, agritourism serves as a sustainability tool that helps multiple Sustainable Development Goals (SDGs) reach their targets specifically in poverty reduction, gender equality, decent work, responsible consumption and environmental conservation [10]. Agritourism, as an economic growth strategy, promotes sustainable environmental practices and maintains cultural traditions and results in multiple economic benefits as well as social advantages and ecological achievements [11]. This planning method provides essential assistance to governments along with development specialists because of its strategic format.

Despite its growing relevance, the concept of agritourism continues to innovate in importance, but different regions and research areas define and implement it differently. Although agritourism has gained increasing attention, its definitions and applications still vary across regions and research domains. To address the lack of a unified academic synthesis, this study adopts a bibliometric approach to systematically examine the link between agritourism and sustainable rural development. It offers an overview of thematic trends and knowledge structures in agritourism research over the past two decades [12].

## 2. LITERATURE REVIEW

### 2.1 An overview of agritourism concepts and developments

The concept of agritourism operates at the intersection of agriculture and tourism alongside rural development initiatives. The initial definitions of agritourism described it as working farms open to visitors who experience agricultural life and help farmers get additional earnings [13]. Over time, the scope has expanded to include a wide range of on-farm experiences, including farm stays, food-based attractions, educational tours, and hands-on agricultural participation [14, 15].

Currently, there are many studies on agricultural tourism, analyzed according to theoretical frameworks, among which behavioral prediction analysis is the majority, and investigates the experiential along with cultural aspects of agritourism [16]. The research on agritourism authenticity perception proves that visitors experience pleasure through studies, which confirm that cultural nostalgia and traditional values function as critical factors [17]. Another research explores Southeast Asian agritourism by examining food that incorporates cultural elements together with performance to create a platform that displays local culture for tourist marketing purposes [18].

In addition to cultural and behavioral approaches, fundamental research about agritourism consists of two major analytical approaches including tourism visitor perspectives alongside structural and economic perspectives, which study rural economic development through enhanced agricultural tourism. The development of farm tourism in Sweden was analyzed, highlighting its potential to revitalize rural economies, particularly through diversification and innovation [19]. This aligns with broader discussions on rural resilience, where agritourism is seen not only as a leisure activity but also as a strategic tool for maintaining agricultural livelihoods and strengthening rural communities [14].

Moreover, agritourism is increasingly recognized as a hybrid field, incorporating elements from cultural tourism, sustainable tourism, and even food systems governance. Cultural tourism in rural regions, often overlapping with agritourism, can serve as a driver of territorial cohesion and socio-economic development [20].

In sum, agritourism today is more than just tourism on farms; it encompasses a range of economic, cultural, and ecological practices that contribute to the sustainable transformation of rural spaces. The conceptual expansion of the term reflects its growing relevance in interdisciplinary research on rural development, sustainability, and tourism studies.

### 2.2 Understanding sustainable rural development concepts

Sustainable rural development (SRD) is a multidimensional process that integrates economic, social, environmental, and institutional components to improve the quality of life in rural areas. In the process of utilizing resources for tourism, it may include options for increasing agricultural productivity, land management, environmental protection, social inclusion and local governance [21, 22].

A rural geography perspective highlights SRD's role in shaping sustainable landscapes through spatial governance, particularly in mediating human-environment interactions [23]. Empirical studies demonstrate that land-use evolution and ecological practices significantly influence biodiversity conservation and agricultural viability [24], while cultural landscape fragmentation metrics offer novel assessments of development strategy efficacy [22].

Extending beyond spatial patterns, environmental governance scholarship reveals how SRD intersects with adaptive policy frameworks. Critical analysis suggests context-specific pathways are paramount for climate vulnerable regions [25], complemented by evidence that local entrepreneurship catalyses sustainable tourism innovation [26].

At the socio-spatial interface, empowerment studies grounded in rural geography illuminate power dynamics: gender equity and community agency emerge as pivotal determinants of tourism initiative support [27, 28]. This body of work collectively advocates for polycentric governance models that institutionalize participatory planning.

In general, these studies suggest that sustainable rural development is not only a planning goal but also a dynamic process involving cultural, environmental, and policy systems. Agritourism, as discussed in the previous section, intersects meaningfully with SRD by offering multifunctional roles from preserving rural identity to fostering socio-economic resilience.

## 3. METHODOLOGY

### 3.1 Search strategy and data collection

The research employed bibliometric methods to study the patterns in agritourism scholarship. The researchers utilized Web of Science and Scopus for data collection because these databases offer broad coverage of peer-reviewed literature as described in previous study [29]. The search syntax used in the databases applied the Boolean logic ("agritourism" OR "farm tourism" OR "rural farm" OR "agrotourism" OR "agro-tourism" OR "food tourism") AND ("sustainable development" OR "sustainable rural development" OR "rural sustainability")

OR “sustainable agriculture” OR “sustainable tourism” OR “environmental sustainability” OR “rural resilience” OR “sustainable livelihoods”). This formed the core of the search strategy. English language research articles from 1983 until 2025 formed the examination scope to select contemporary academic discussions.

**Table 1.** Main information about the data

Description	Results
Timespan	1983–2025
Sources (Journals, Books, etc.)	451
Documents	1034
WoS	445
Scopus	589
Duplicated documents removed	208
Annual growth rate (%)	17.29
Document average age	5.8
Average citations per doc	14.4
References	45773
Keywords plus (ID)	1885
Author’s keywords (DE)	2250
Authors	2493
Authors of single-authored docs	108
Single-authored docs	151
Co-authors per doc	3.44
International co-authorships (%)	9.09

Source: Author's analysis (2025)

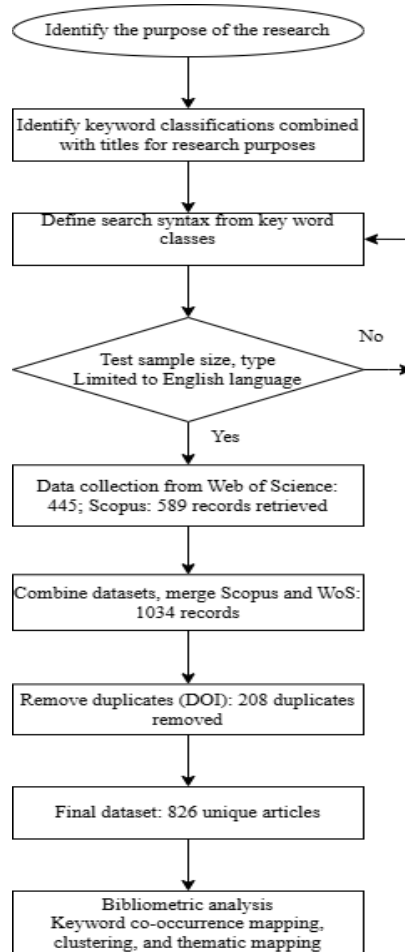
The database search resulted in 1034 records among the selected databases after language filters. The analysis required

bibliographic data export with BibTeX and CSV formats, which guarantees compatibility with bibliometric tools as recommended [30]. After removing 208 duplicate documents, the dataset contained 826 unique articles for analysis. Descriptive analysis shows that each article in this dataset has an average of 14.4 citations and an annual growth rate of 17.29%. The international collaboration rate is 9.09%, reflecting the global interconnectedness of agritourism research (see details in Table 1).

### 3.2 Data analysis techniques

This study employed bibliometric analysis using the Bibliometrix R package to examine agritourism research trends. The merged WoS/Scopus data underwent cleaning and standardization before analysis [30]. First, performance analysis evaluated publication trends, influential authors/institutions, and citation patterns [31]. Next, science mapping techniques were applied, including keyword co-occurrence analysis to identify research themes and co-authorship networks to reveal collaboration patterns [32]. Thematic evolution mapping tracked conceptual developments over time. To visualize findings, word clouds, thematic maps, and collaboration networks were generated using Biblioshiny and R functions.

To concretize the implementation processes and facilitate monitoring, Figure 1 shows all the main steps of the bibliometric analysis process applied in the study.



**Figure 1.** Data collection, processing and analysis procedures in bibliometric research

Source: Author’s illustration, 2025

## 4. RESULTS

### 4.1 Publication impact and visibility

The analysis of influential academic publications in agritourism research focused on top-cited articles within the

dataset. The list in Table 2 displays the ten highest-cited papers with data showing total citations (TC) alongside average citations per year and normalized total citations (NTC). This research includes essential papers that produced substantial transformations in academic thinking about agritourism.

**Table 2.** Top 10 author contributions and high-impact articles

No.	Paper	DOI	TC	AVE. Year	NTC
1	Gao J, 2017, Tour Manage	10.1016/j.tourman.2017.04.003	427	47.4	6.24
2	Sharpley R, 2006, Tour Manage	10.1016/j.tourman.2005.10.025	272	13.6	2.9
3	Yang J, 2021, J Hosp Tour Manage	10.1016/j.jhtm.2021.02.008	239	47.8	10
4	Lordkipanidze M, 2005, J Clean Prod	10.1016/j.jclepro.2004.02.043	234	11.1	3.03
5	Cawley M, 2008, Ann Tour Res	10.1016/j.annals.2007.07.011	234	13	5.01
6	Sidali KI, 2015, J Sustainable Tour	10.1080/09669582.2013.836210	225	20.5	6.69
7	Rosalina Pd, 2021, J Hosp Tour Manage	10.1016/j.jhtm.2021.03.001	219	43.8	9.17
8	Su B, 2011, Tour Manage	10.1016/j.tourman.2010.12.005	209	13.9	5.19
9	Saxena G, 2007, Tour Geogr	10.1080/14616680701647527	207	10.9	2.05
10	Muresan Ic, 2016, Sustainability	10.3390/su8010100	206	10	2.02

Source: Author's analysis (2025)

The most cited article proposes a traditional village revitalization model grounded in rural tourism practices in China, integrating sustainable livelihood theory with community-driven development approaches [33]. Similarly, another key study provides empirical insights into farmers' attitudes toward diversification into tourism, highlighting both social constraints and policy implications for farm-based tourism in rural England [34].

Additionally, conceptual foundations of the field are strengthened through models of integrated rural tourism (IRT), which emphasize a holistic approach combining economic, cultural, social, and environmental factors. Two notable contributions in this area include research conducted in Ireland and in broader European contexts [35, 36].

Meanwhile, studies focusing on the Chinese context explore the transformation of rural spaces through tourism development. One report examines rural revitalization through spatial and socio-economic changes driven by tourism in the Jinshitan scenic area [37], while another analyzes six models of rural tourism development, including the "Nong jia le" (Happy Farmer Home) model, which illustrates China's approach to rural regeneration through tourism [38].

In terms of rural entrepreneurship and innovation, one study examines tourism-related business development in the Söderslätt region of Sweden, featuring a case study of the "Healthy Pig Farm" to highlight practical strategies and challenges for agritourism enterprises [26]. Another article explores niche marketing of rural food products through the lens of the experience economy and the intimacy model, connecting culinary identity with rural tourism experiences [39].

Finally, a recent systematic review offers a comprehensive mapping of rural tourism definitions and challenges. It identifies four key thematic dimensions location, sustainable development, community-based features, and experience serving as a conceptual anchor for future agritourism research [40].

### 4.2 Science mapping

To gain insights into the conceptual landscape, intellectual patterns, and collaborative dynamics of the field, this study employed a set of bibliometric techniques. Co-occurrence analysis was applied to identify major thematic clusters

(Figure 2); co-authorship network analysis explored international research collaboration across countries (Figure 3); and thematic mapping illustrated the evolution and positioning of key research topics over time (Figure 4). Collectively, these methods offer a broad perspective on the structure and development of agritourism research.

#### 4.2.1 Keyword co-occurrence analysis to uncover key research themes and clusters

In this study, keyword co-occurrence analysis helps to identify key research topics and map relationships between prominent concepts in the field of agritourism and sustainable rural development. Detailed results of the centrality indices of each keyword are presented in Table 3, while Figure 1 visualizes the keyword network structure and major topic clusters of the key research directions in the publications.

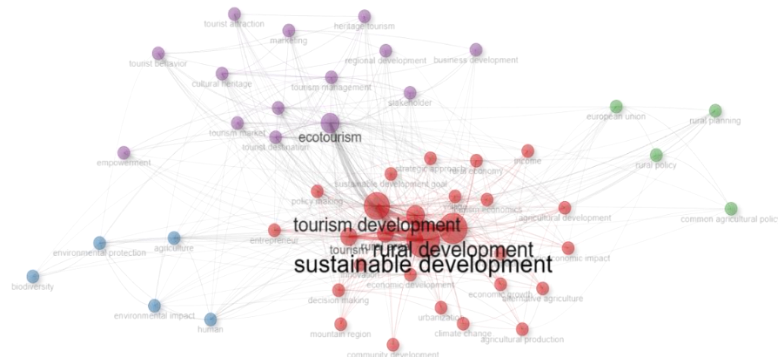
Figure 2 shows the co-occurrence analysis of author keywords to obtain an outline of the thematic organization within agritourism scientific investigations. The result reveals four primary clusters after analyzing the keyword frequency and network connectivity. The identified clusters represent independent study paths which connect as specific research approaches spanning from sustainable development theories through environmental issues to institutional settings. The subsequent sections examine the content together with the essential characteristics of the cluster.

To begin with, cluster 1 forms the intellectual core of agritourism research, revolving around themes such as sustainable development, rural development, tourism development, and sustainability. Notably, keywords like "sustainable development" (PageRank: 0.1555), "rural development" (0.1083), "rural tourism" (0.1170), and "agritourism" (0.1044) all demonstrate exceptionally high centrality scores, indicating their foundational role in the field [33, 40]. In addition, keywords such as "economic development", "innovation" and "entrepreneurship" also play a prominent role in the network of applied publications (e.g., "economic development" with PageRank 0.0662, "innovation" 0.0539, and "entrepreneurship" 0.0809). This shows that agritourism not only contributes to diversifying the rural economy but is also consistent with broader development orientations, especially the United Nations sustainable development goals [41].

**Table 3.** Co-occurrence network clustering results

Node	Cluster	Betweenness	Closeness	PageRank
Sustainable development	1	267.053	0.02	0.112
Rural development	1	204.954	0.019	0.096
Tourism development	1	121.925	0.019	0.088
Tourism	1	30.294	0.016	0.048
Sustainability	1	39.251	0.018	0.056
Rural area	1	26.436	0.017	0.048
Economic development	1	2.506	0.013	0.021
Rural economy	1	1.533	0.012	0.019
Rural population	1	1.003	0.012	0.013
Entrepreneur	1	0.829	0.012	0.015
Innovation	1	1.111	0.013	0.015
Tourism economics	1	0.689	0.012	0.015
Decision making	1	1.646	0.012	0.012
Village	1	0.801	0.012	0.013
Sustainable development goal	1	0.906	0.012	0.012
Agricultural development	1	0.219	0.012	0.01
Strategic approach	1	0.067	0.012	0.01
Agricultural production	1	0.475	0.011	0.009
Income	1	0.123	0.012	0.009
Policy making	1	0.339	0.012	0.009
Climate change	1	0.23	0.011	0.007
Alternative agriculture	1	0.605	0.012	0.01
Mountain region	1	0.018	0.011	0.009
Urbanization	1	0.106	0.011	0.007
Community development	1	0	0.011	0.006
Economic growth	1	0.307	0.012	0.009
Socioeconomic impact	1	0.386	0.011	0.008
Agriculture	2	1.004	0.013	0.013
Human	2	1.857	0.013	0.015
Biodiversity	2	0.004	0.011	0.005
Environmental impact	2	0.184	0.011	0.008
Environmental protection	2	0.375	0.012	0.009
European union	3	1.407	0.012	0.012
Rural policy	3	0.368	0.011	0.009
Rural planning	3	0.13	0.011	0.009
Common agricultural policy	3	0.138	0.011	0.007
Ecotourism	4	49.301	0.019	0.058
Tourist destination	4	5.988	0.014	0.029
Perception	4	4.058	0.014	0.023
Tourism management	4	2.871	0.013	0.019
Tourism market	4	1.094	0.013	0.017
Cultural heritage	4	1.16	0.013	0.015
Stakeholder	4	0.391	0.012	0.011
Tourist behavior	4	0.267	0.012	0.009
Heritage tourism	4	0.136	0.012	0.009
Marketing	4	0.226	0.012	0.009
Regional development	4	0.172	0.011	0.008
Empowerment	4	0.004	0.011	0.008
Tourist attraction	4	0.015	0.011	0.007
Business development	4	0.036	0.011	0.007

Source: Author's analysis (2025)

**Figure 2.** Co-occurrence network of keywords in agritourism and sustainable rural development

Source: Author's analysis (2025)

Moving forward, cluster 2 emphasizes ecological and agricultural dimensions. Central keywords such as “agriculture” (PageRank: 0.1051), “ecotourism” (0.0585), “biodiversity” (0.0526), “climate change” (0.0495), and “environmental impact” (0.0472) reflect growing scholarly interest in the interaction between tourism and natural ecosystems. In recent years, studies in this cluster have started to question how expanding tourism in agricultural areas could affect the environment and what responsibilities local stakeholders should consider [37]. In contrast to the mainly economic focus of cluster 1, cluster 2 encourages broader discussions about how agritourism can promote both sustainability and ethical land use [38].

In addition, cluster 3 focuses on institutional and policy contexts, especially within Europe. Keywords such as “Common agricultural policy” (PageRank: 0.0530), “diversification” (0.0529), “governance” (0.0364), and “policy” (0.0360) play a dominant role in this cluster. Studies have explored how regional and national governance frameworks influence the development of agritourism, particularly through mechanisms like common agricultural policy (CAP) subsidies and rural development programs [33, 42]. While not as densely connected as cluster 1, the relatively high PageRank values of “common agricultural policy” (0.0530) and “diversification” (0.0529) suggest that policy and institutional frameworks are significant drivers shaping the landscape of rural tourism development, particularly in regions with comprehensive agricultural policy regimes.

Lastly, cluster 4 centers on the market dynamics and visitor experience within agritourism. The leading keywords include “ecotourism” (PageRank: 0.0585), “marketing” (0.0486), “tourism management” (0.0468), “authenticity” (0.0415), and “cultural heritage” (0.0407), highlighting the academic interest in how agritourism is positioned and perceived in the tourism marketplace. This trend aligns with Sidali et al. (2015), who examine food-based niche marketing in rural settings, and Maia’s (2005) case of entrepreneurial agritourism ventures in Sweden. The presence of these keywords with relatively high PageRank values indicates that market orientation and visitor experience have become key research themes, reflecting the importance of both economic and emotional dimensions in regional development.

#### 4.2.2 Co-authorship analysis to explore collaboration patterns

The analysis of the author collaboration network helps to identify the main research groups, the degree of cohesion and the structure of international collaboration. The detailed analysis results of the number of publications, the linkage index and the centrality of each country cluster are presented in Table 4. Figure 3 visualizes the international collaboration network among authors according to the distribution of each prominent cluster.

To further understand the social structure of agritourism research, a co-authorship network analysis was conducted based on country affiliations. This analysis reveals patterns of international collaboration and identifies influential national research hubs. As shown in Table 4 and Figure 3, the countries were grouped into five major clusters, each representing a network of closely collaborating nations.

Cluster 1 includes a group of primarily Central and Eastern European countries, such as Poland, Romania, Serbia, Hungary, and the Russian Federation, along with others like Japan and Kazakhstan. Within this group, Poland and Romania emerge as regional leaders, contributing 56 and 61

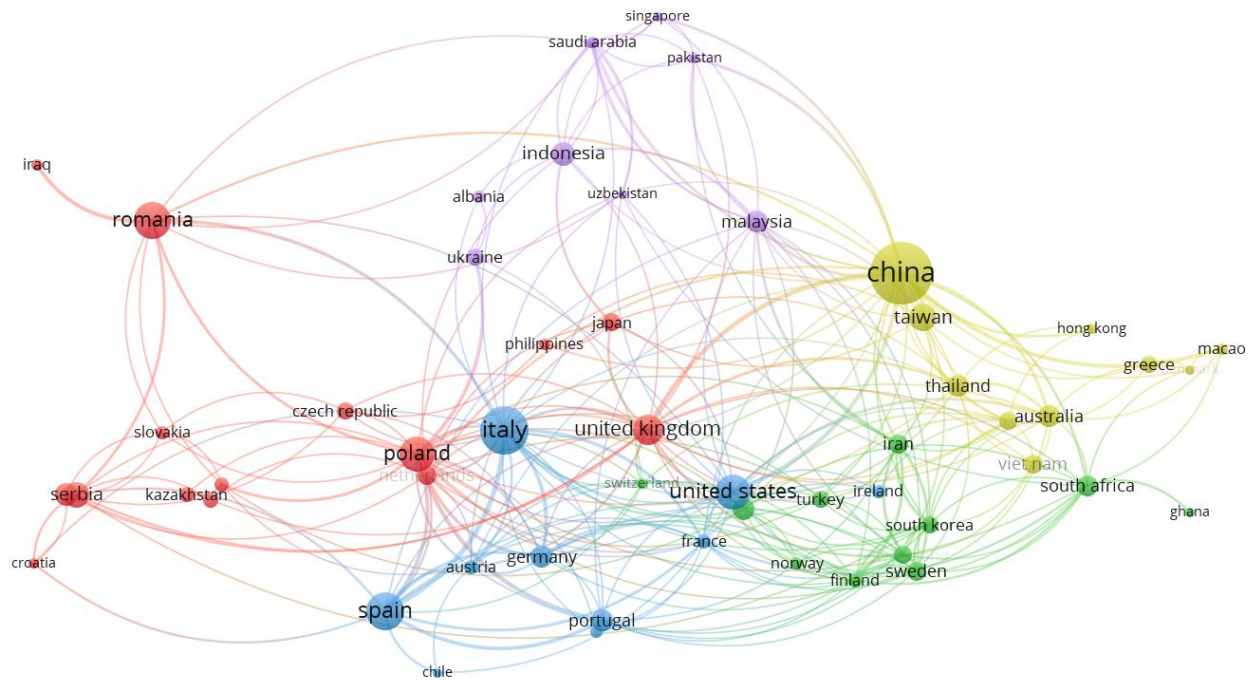
documents respectively, and receiving a significant number of citations. This cluster highlights strong intra-regional collaboration and academic investment in rural development topics in post-socialist contexts [41].

**Table 4.** Country clusters in co-authorship network

Country	Documents	Citations	Total Link Strength
Cluster 1 (14 items)			
Croatia	5	36	6
Czech Republic	14	222	7
Hungary	10	106	9
Iraq	6	325	5
Japan	15	253	10
Kazakhstan	11	86	2
Netherlands	17	884	21
Philippines	6	35	4
Poland	56	925	42
Romania	61	1045	22
Russian federation	24	385	16
Serbia	29	421	24
Slovakia	8	33	6
Slovenia	11	92	4
Cluster 2 (12 items)			
Australia	21	677	17
Canada	15	531	14
China	175	2664	64
Greece	14	221	2
Hong Kong	5	65	5
Ireland	8	421	4
Macao	6	86	8
Taiwan	34	358	17
Thailand	21	149	16
United Kingdom	42	1966	39
United states	56	1803	27
Vietnam	17	244	6
Cluster 3 (10 items)			
Finland	8	574	28
India	21	314	12
Iran	16	185	22
New Zealand	15	370	26
Norway	7	291	7
South Africa	20	703	15
South Korea	13	261	23
Sweden	16	706	25
Switzerland	5	86	10
Turkey	14	153	9
Cluster 4 (7 items)			
Albania	7	29	3
Egypt	5	141	9
Indonesia	26	142	12
Malaysia	21	279	23
Pakistan	5	52	11
Saudi arabia	6	41	9
Ukraine	13	87	8
Cluster 5 (7 items)			
Austria	9	186	18
Brazil	7	262	5
France	9	361	21
Germany	21	897	26
Italy	103	2848	48
Portugal	21	794	21
Spain	66	1014	38

Source: Author's analysis (2025)





**Figure 3.** Visualizing international collaboration clusters based on co-authorship linkages  
Source: Author's analysis (2025)

Cluster 2 is more globally distributed and consists of high-output research economies such as China, the United States, the United Kingdom, Canada, and Australia. China leads this group with 175 documents and 2664 citations, reflecting its growing academic presence in the field [37]. The United States and the United Kingdom also demonstrate high citation counts and strong total link strengths, indicating their central roles in global scholarly collaboration. The inclusion of countries such as Taiwan, Thailand, and Vietnam in this cluster suggests increasing participation from Asia-Pacific nations in international research networks [40].

Cluster 3 contains Northern and Western European countries (Sweden, Finland, Norway, Switzerland) and selected members from Asia and the Global South, such as India and South Africa. Countries like Sweden and Finland demonstrate relatively high citation impacts compared to their publication volumes, pointing to the influence of fewer but highly cited works [26]. This cluster appears to reflect a mix of regional and thematic linkages, particularly around sustainability and agro-ecological research.

Cluster 4 is composed mostly of emerging economies in Southeast Europe, the Middle East, and parts of Asia, including Albania, Indonesia, Malaysia, Egypt, Pakistan, and Saudi Arabia. These countries exhibit moderate levels of scientific output and link strength, suggesting more regionally contained or developing collaborative networks. In Indonesia, rural tourism development has been analyzed through integrated evaluation methods, highlighting national-level engagement with sustainability planning [43]. Meanwhile, research in Pakistan emphasizes the role of mountain tourism in promoting sustainable development in peripheral regions [44].

Cluster 5, finally, includes several high-performing Western European and Latin American countries, such as Italy, Germany, Spain, France, Austria, Portugal, and Brazil. Italy stands out with the highest number of publications (103) and citations (2848) across all clusters, suggesting a leadership role in the field of agritourism research, particularly within the EU

framework [35]. This cluster indicates strong intra-European academic ties and contributions from countries with long-standing agricultural and rural tourism traditions [36].

Overall, the co-authorship network analysis demonstrates that agritourism research is both internationally distributed and regionally concentrated, with distinct hubs of collaboration and influence. While high-income countries dominate output and citations, there is evidence of growing participation from emerging economies, reflecting a diversification of voices in shaping the future of agritourism scholarship.

#### 4.2.3 Thematic evolution of research trends over time

Analyzing the evolution of research topics helps to clarify the main development directions as well as the prominence of each topic in the field of agritourism over the periods. Detailed quantitative results on the centrality and density of the development of topics are presented in Table 5. Figure 4 visualizes the topic clusters on the two axes of centrality and density, thereby showing the core groups of topics, emerging development directions, as well as potential areas for future exploitation.

The thematic map in Figure 4 provides a strategic visualization of the thematic structure in agritourism research by plotting themes based on their centrality which indicates importance to the field, and their density, which reflects the level of development. The map is divided into four quadrants, each representing a specific type of research theme: motor themes, niche themes, emerging or declining themes, and basic themes. These quadrants offer insight into the maturity, relevance, and future potential of various thematic clusters.

To begin with, the motor themes quadrant, which is characterized by high centrality and high density represents, well-developed and structurally significant topics. Keywords such as cultural tourism, social innovation, common agricultural policy, farm tourism, and sustainable agriculture dominate this area. These themes are not only conceptually coherent but also play a central role in shaping the field. For

instance, cultural tourism bridges agricultural practices with heritage experiences, while social innovation reflects evolving rural business models and governance mechanisms [35]. Similarly, common agricultural policy highlights the institutional foundation for rural and agritourism development, especially in the European context [42]. The strong presence of these topics suggests that they are key drivers in advancing agritourism research.

In contrast, the niche themes quadrant about low centrality, high density includes topics that are internally well-structured

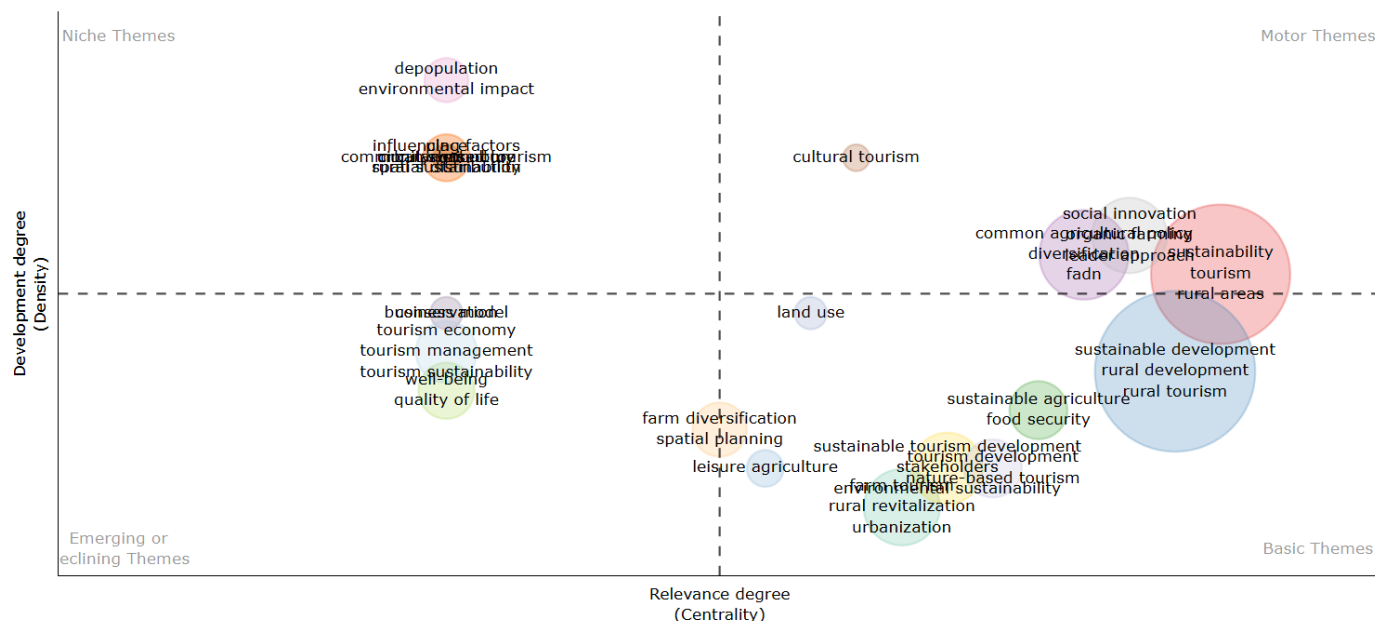
but remain peripheral to the main discourse. Terms like urban agriculture, leisure agriculture, conservation, circular economy, place, and community-based tourism are prominent in this area [8]. These themes often reflect specialized interests or emerging interdisciplinary intersections, such as the integration of sustainability and urban planning or localized tourism governance. While not yet central to the field, these topics may provide innovative directions or theoretical depth, especially in context-specific case studies [39].

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Hong Kong	5	65	5
Ireland	8	421	4
Macao	6	86	8
Taiwan	34	358	17
Thailand	21	149	16
United Kingdom	42	1966	39
United states	56	1803	27
Vietnam	17	244	6
Cluster 3 (10 items)			
Finland	8	574	28
India	21	314	12
Iran	16	185	22
New Zealand	15	370	26
Norway	7	291	7
South Africa	20	703	15
South Korea	13	261	23
Sweden	16	706	25
Switzerland	5	86	10
Turkey	14	153	9
Cluster 4 (7 items)			
Albania	7	29	3
Egypt	5	141	9
Indonesia	26	142	12
Malaysia	21	279	23
Pakistan	5	52	11
Saudi Arabia	6	41	9
Ukraine	13	87	8
Cluster 5 (7 items)			
Austria	9	186	18
Brazil	7	262	5
France	9	361	21
Germany	21	897	26
Italy	103	2848	48
Portugal	21	794	21
Spain	66	1014	38

Source: Author's analysis (2025)





**Figure 4.** Visualization of thematic clusters based on centrality and density scores  
Source: Author's analysis (2025)

Furthermore, the emerging or declining themes quadrant, characterised by low centrality and low density, contains topics that are either gaining traction or losing relevance. Keywords such as depopulation, influencing factors, well-being, and farm diversification illustrate this category. These themes may signal newly developing interests such as post-pandemic concerns with rural mental health or underexplored areas that lack cohesive research frameworks [40]. Their low positioning suggests that further conceptual development and empirical validation are needed to establish their importance in the field [12, 38].

Finally, the basic themes quadrant has high centrality, low density, and includes fundamental but underdeveloped topics. Notable terms in this area are sustainability, sustainable development, tourism development, sustainable tourism development, and tourism economy. These themes are essential to the intellectual framework of agritourism and appear frequently across publications, yet their internal coherence or theoretical refinement remains limited [45]. As such, they represent promising areas for deeper theorization, particularly when linked with measurable outcomes or comparative policy analyses [6, 20].

## 5. DISCUSSION

This study provides a comprehensive overview of the intellectual landscape of agritourism research by combining citation impact, co-authorship networks, keyword analysis, and thematic evolution mapping. Through these bibliometric techniques, the findings reveal a maturing yet dynamic research field characterized by growing international collaboration, conceptual diversification, and evolving thematic orientations. Importantly, the identified thematic categories motor, niche, emerging/declining, and basic provide a structured framework to capture both prevailing research priorities and evolving directions in the agritourism-sustainability nexus.

The motor themes, including cultural tourism, social

innovation, farm tourism, and sustainable agriculture highlight core domains that are both conceptually mature and structurally central to the field [35]. These themes affirm agritourism's role in linking agricultural livelihoods with cultural heritage, while addressing broader policy goals such as rural revitalization and territorial cohesion [42]. For example, integrating social innovation into rural tourism reflects a growing emphasis on participatory governance and community-driven entrepreneurship as pillars of sustainable territorial development.

In contrast, the niche themes such as circular economy, urban agriculture, and community-based tourism represent conceptually rich but currently peripheral areas of research. These themes are often explored in localized or exploratory studies and may offer fertile ground for interdisciplinary integration. Notably, recent work has highlighted how niche food experiences and place-based identity can serve as catalysts for rural branding and economic diversification [8, 39]. The emergence of circular economy discourse within agritourism, in particular, suggests promising intersections with environmental economics and agroecological innovation.

The emerging or declining themes, including well-being, depopulation, and farm diversification, reflect areas of uncertainty or conceptual flux. While some of these topics may be fading, others like rural well-being are resurging in relevance due to post-pandemic shifts in rural lifestyles and tourism motivations [38, 40]. These themes require more targeted empirical inquiry to assess their long-term sustainability implications and clarify their conceptual fit within the agritourism discourse [12].

Finally, the basic themes sustainability, tourism development, and rural development are frequently cited but remain underdeveloped in terms of theoretical rigor. These foundational concepts are essential to the field but often lack contextual specificity or measurable indicators [6, 45]. Future studies should aim to refine these broad constructs by operationalizing them with contextual indicators and linking them to measurable outcomes such as gender inclusion, biodiversity preservation, and rural spatial planning [22, 27].

In summary, this discussion highlights the value of a thematic-based mapping approach to understand how agritourism research is evolving. Each thematic cluster presents distinct opportunities for advancement: motor themes can be further consolidated, niche themes strategically expanded, emerging themes empirically validated, and basic themes theoretically reframed. Together, they outline a dynamic research agenda for scholars and practitioners aiming to leverage agritourism as a vehicle for sustainable and inclusive rural transformation.

## 6. CONCLUSION AND IMPLICATIONS

This study employed a bibliometric and science mapping approach to analyze the structure, trends, and evolution of agritourism research over the past four decades. The results reveal that agritourism has emerged as a multidisciplinary and policy-relevant domain, closely intertwined with issues of sustainability, rural transformation, and cultural identity.

The performance analysis identified highly cited studies that form conceptual foundations, such as integrated rural tourism [35], farm diversification [34], and systematic literature reviews addressing definitional and contextual challenges [40]. The keyword analysis revealed four main thematic clusters: sustainability-oriented development, ecological and agricultural systems, policy and governance frameworks, and visitor experience and marketing.

The thematic evolution mapping highlights a shift from traditional rural tourism and sustainable development toward more integrative and emerging themes, such as circular economy, well-being, and resilience [8, 40]. This trend reflects a growing emphasis on the interplay between environmental ethics, rural livelihoods, and consumer behavior. Studies have also noted the importance of identity-based experiences, including food tourism and place branding, as value-added dimensions of agritourism [39].

From a theoretical perspective, the study contributes to understanding the maturity and interconnectivity of agritourism research. Motor themes are well-established and can be expanded through comparative or longitudinal analyses. Niche themes like urban agriculture or circular economy offer potential for interdisciplinary integration, especially within sustainability and regional planning. Emerging themes such as depopulation and rural well-being require empirical validation and theoretical refinement, particularly in post-pandemic rural contexts [12, 38]. Basic themes, though frequently cited, still need stronger conceptual frameworks and measurable policy outcomes [6, 45].

Practically, this research provides insights for destination planners and policymakers. Strengthening cross-sector partnerships, embedding agritourism in territorial development, and fostering innovation around local food and cultural assets could enhance resilience and competitiveness. As rural areas face complex challenges, agritourism emerges as a strategic tool not only for economic diversification but also for fostering community empowerment and sustainable transformation.

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