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Trends in Agricultural Products Marketing: A Bibliometric Analysis and Future Research Agenda

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ABSTRACT

This study aims to explore and demonstrate sustainable improvements in the domain of marketing and agricultural products by conducting a comprehensive bibliometric analysis. The bibliographic data for this research were meticulously sourced from the Scopus database, an internationally recognized platform known for its inclusion of high-quality, peer-reviewed academic publications. A precise and well-defined search query was employed to ensure the integration of a robust and relevant body of literature. The search string used was “Marketing” AND “Agriculture product,” which allowed the study to encompass a wide range of themes related to agricultural marketing, including aspects of consumer behavior, market dynamics, and innovation in the agricultural sector. The analysis was conducted using R Studio and VOSviewer software, which facilitated the mapping and visualization of bibliometric networks and trends within the dataset. The findings of the study reveal key thematic trends in marketing agricultural products, such as risk management, transaction costs, consumer preferences, agricultural markets, corn prices, Africa, and product quality. Moreover, the results highlight significant geographical interest from countries including the USA, France, Germany, Canada, India, Spain, Greece, and Italy. Strong co-occurrence patterns were identified between keywords such as marketing and innovation, agricultural marketing and food,

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cooperatives and India, as well as farmers and India. These insights offer valuable guidance for future research and policymaking.

Keywords: Marketing; Agricultural Product; Bibliometric; Agricultural Trade; R Studio; VOS Viewer

JEL Classification: M30; M31; M39

1. Introduction

Agricultural products marketing encompasses the complete range of actions required to transfer agricultural goods from producers to end customers. In contrast to industrial commodities, agricultural products are frequently perishable, produced seasonally, and exhibit significant variety in quality and quantity, requiring a specialised marketing strategy^[1]. Agricultural marketing is significant for improving farmers' lives, ensuring food security, and promoting rural development. Effective marketing systems allow farmers to obtain equitable pricing, minimise post-harvest losses, and reach broader markets, both nationally and globally. Agricultural marketing is essential to the full agri-value chain, encompassing input suppliers, producers, processors, distributors, and retailers^[2]. With the rise in global food demand driven by population expansion and urbanisation, the importance of resilient agricultural marketing systems intensifies. Governments, cooperatives, and the private sector are essential in enabling these systems via infrastructure construction, policy formulation, and the distribution of market information^[3, 4].

Notwithstanding its significance, the marketing of agricultural goods encounters several problems, especially in developing nations. A recurrent challenge is the deficiency of infrastructure, including rural roads, cold storage facilities, and effective transportation networks, resulting in elevated transaction costs and considerable post-harvest losses. Moreover, smallholder farmers frequently experience restricted access to real-time market information, undermining their bargaining strength and leading to abuse by intermediaries^[5]. The volatility of agricultural prices, influenced by weather variations, pest infestations, and worldwide market dynamics, challenges marketing strategies. Moreover, institutional deficiencies, such as insufficient regulatory frameworks and restricted access to financing, impede farm-

ers' capacity to interact successfully with markets^[6]. These problems underscore the pressing necessity for cohesive marketing strategies that amalgamate technical advancements (including digital platforms and mobile applications), collaborative frameworks, and public-private partnerships to enhance the inclusivity, transparency, and efficiency of agricultural markets^[7].

The Content Marketing Institute characterizes content marketing as a strategy methodology that encompasses the production and dissemination of meaningful, pertinent, and consistent material to engage and keep a specifically defined audience, eventually facilitating lucrative consumer activities^[8, 9]. Short-video social networks, as digital media tools, facilitate user interaction, content sharing, and information exchange online, establishing an ideal setting for content marketing. Agricultural products, vital for human nourishment and nutrition, utilize content marketing as a crucial instrument to enhance sales, navigate market challenges, amplify brand presence, and cultivate emotional bonds with customers^[10, 11]. From September 2023 to September 2024, TikTok e-commerce recorded cumulative sales of 7.1 billion units of agricultural items, with shelf-based scenarios accounting for a 60% year-on-year sales growth. This underscores that content marketing for agricultural products on short-video social networks functions as a significant avenue for customers to identify and acquire items^[11].

1.1. Research Problem and Motivation

Notwithstanding considerable progress in agricultural output, farmers, particularly in emerging nations, persistently encounter restricted access to lucrative markets due to antiquated marketing structures, insufficient digital integration, and fragile value chain connections. Conventional routes prevail in agricultural marketing, frequently leading to inefficiencies, price volatil-

ity, and diminished earnings for growers. Simultaneously, global developments include digital agriculture, e-commerce platforms, direct-to-consumer sales, sustainability certifications, and consumer demands for organic and traceable products, which are transforming the agricultural marketing environment. For this reason, this study aims to demonstrate the sustainable improvement in the area of marketing and agricultural products.

1.2. Aims

The purpose of this study is to provide evidence of a sustained improvement in the field of the agricultural industry and product marketing. The objective of his study is to determine which scientific magazine is the most significant in the field of agricultural goods and marketing. Furthermore, the purpose of this article is to illustrate the connection between sustainable core topics, keywords, nations, and sources in the context of marketing agricultural goods. In addition, this research has illustrated the primary topics that pertain to marketing and agricultural goods.

In the field of marketing and agricultural products, there are a series of research questions (RQs):

- RQ1.** What is the most important journal in marketing and agricultural products?
- RQ2.** What is the relationship between sustainable fundamental themes, keywords, countries, and sources in the marketing and agricultural products?
- RQ3.** What are the major themes in marketing and agricultural products?
- RQ4.** What are the bibliometric trends of marketing and agricultural products?

2. Literature Review

2.1. Agricultural Marketing

Structured marketing systems determine the stability of market pricing. It guarantees enhanced returns to the farmer. It safeguards the interests of both consumers and producers^[4]. In several underdeveloped nations, agricultural marketing is poorly structured, result-

ing in farmers encountering various challenges in selling their products. The selling of agricultural goods has encountered several issues and hurdles^[11, 12]. The current marketing system faces challenges such as inadequate warehousing, absence of grading and standardization, insufficient transportation facilities, an excessive number of intermediaries, low literacy levels, malpractices in unregulated markets, insufficient market information, inadequate credit facilities, and various other issues^[2, 13].

2.2. Agriculture Economy

The agricultural economy constitutes the foundation of several emerging countries, significantly contributing to economic development, job creation, and food security. Historically, agriculture has served as the foundational sector from which other sectors, including manufacturing and services, have developed. In several low- and middle-income nations, agriculture constitutes a substantial amount of the gross domestic product and engages a considerable segment of the labour force, especially in rural regions. Agriculture, in addition to food production, underpins several agro-based enterprises, enhances commerce, and impacts the development of rural infrastructure^[14, 15]. Moreover, enhancements in agricultural production exert a significant multiplier effect on the whole economy, since higher incomes among farmers stimulate greater demand for products and services. Consequently, agricultural expansion is frequently regarded as a driver for poverty alleviation, particularly when inclusive and smallholder-friendly policies are implemented. The agricultural economy not only guarantees the nourishment of populations but also facilitates structural transformation and long-term economic sustainability^[16].

Notwithstanding its significance, the agricultural economy has several structural difficulties that constrain its development. These encompass land fragmentation, restricted access to financing, insufficient irrigation infrastructure, reliance on monsoons, and inadequate post-harvest services^[17]. In several areas, smallholder farmers face low productivity stemming from antiquated agricultural methods, inadequate mechanisation, and limited access to high-quality inputs, including seeds, fertilisers, and pesticides. Moreover, price

fluctuations, inadequate market connections, and diminished negotiating power render farmers susceptible to economic vulnerabilities. Climate change presents a growing challenge to agricultural economies, as unpredictable weather patterns, elevated temperatures, and a higher incidence of catastrophic events harm crop harvests and livelihoods. Furthermore, policy inconsistencies, insufficient extension services, and inadequate investment in rural infrastructure intensify the sector's issues. The structural difficulties highlight the necessity for extensive changes that integrate technical innovation, institutional support, and sustainable practices to improve the resilience and productivity of the agricultural industry^[18].

2.3. Agricultural Supply Chain

The agricultural supply chain may be loosely divided into two parts: the upstream supply chain and the downstream supply chain. Both of these parts represent the supply chain stages. The cultivation and harvesting of agricultural goods are both operations that are included in the upstream supply chain. Farmers and companies that supply them with seeds, fertilisers, and machinery are included^[19,20]. Operations that take place after harvesting are included in the downstream supply chain. These operations include marketing, processing, distribution, retailing, and consuming^[12,21]. Farmers, middlemen, aggregators, processors, distributors, retailers, and consumers are the primary participants in this industry^[9]. As a result of the value enhancement that occurs during processing inside the supply chain, a commodity's value increases as it moves down the downstream supply chain. This is in contrast to the value of agricultural goods that are immediately after harvesting^[22]. The price of the product increases as a result of the growing participation of various stakeholders in the supply chain. As a result, it is necessary to have a design that is optimised for the supply chain further downstream^[7,23].

3. Methods

The bibliographic data employed. The data for this study were obtained from the Scopus database.

Scopus is a globally recognised database that contains high-quality, peer-reviewed academic articles. An exact search query was employed to integrate a comprehensive body of literature for the investigation^[24,25]. The search string employed was "Marketing" AND "Agriculture product". The search string encompassed several facets of librarianship and research data management^[26].

Multiple filters were employed to enhance and assess the outcomes. The focus was confined to social sciences, humanities, business, management, and accounting, all of which are closely linked to marketing and agricultural goods^[27]. To improve the overall quality of the bibliometric analysis, only articles and reviews were accepted as document categories; conference proceedings and book chapters were eliminated. To ensure the inclusion of only peer-reviewed documents in the study, the selection of sources was limited to journals^[28,29]. The study solely includes texts authored in English to enhance understanding. Following filtration and refining, 2,649 documents have been acquired. Ten records identified as duplicates or lacking information were removed 65 from the collection. A total of 2,584 documents were processed for analysis^[30]. The methodology is illustrated in **Figure 1**.

In 2024, the bibliographic information was extracted. The extracted data spanned the period from 1988 to March 2024. To encompass all marketing and agricultural products, the years were not restricted^[31]. The bibliographic information was incorporated into the research from its inception and was entered into the Scopus database^[32]. It provides both a comprehensive historical synopsis and an up-to-date analysis of the research field's current trends. The bibliographic data were subjected to statistical analysis, graphical representation, and mapping using the VOS viewer software and Biblioshiny from R Studio. A comprehensive examination of the most frequent words, Bradford laws, topics trend, and Thematic-Map was conducted utilizing Biblioshiny^[33]—the effectiveness of the VOS viewer in representing bibliographic coupling, Co-occurrence, and Co-authorship.

In this study, we used the most frequent words, Bradford laws, Topics trend and Thematic-Map, Bibliographic coupling, Co-occurrence, and Co-authorship

analysis. Most frequent words refer to terms that occur with the greatest frequency in the title, abstract, and keywords of a compilation of scholarly articles. Additionally, Bradford's Laws illustrate the distribution pattern of scientific papers on a certain subject among several journals^[34, 35]. However, Topics trend and Thematic-Map denote the progression and temporal fluctuations of research themes or keywords within a certain domain over a specified timeframe^[36]. Furthermore, Bibliographic

coupling is employed to assess the similarity of two papers by quantifying the number of common references they mention. While Co-occurrence denotes the concurrent emergence of two or more elements, such as keywords, authors, or terminology, inside the same text or collection of documents. Finally, Co-authorship analysis analyzes the cooperative affiliations of authors, institutions, or nations through their collective production of scholarly publications^[32].

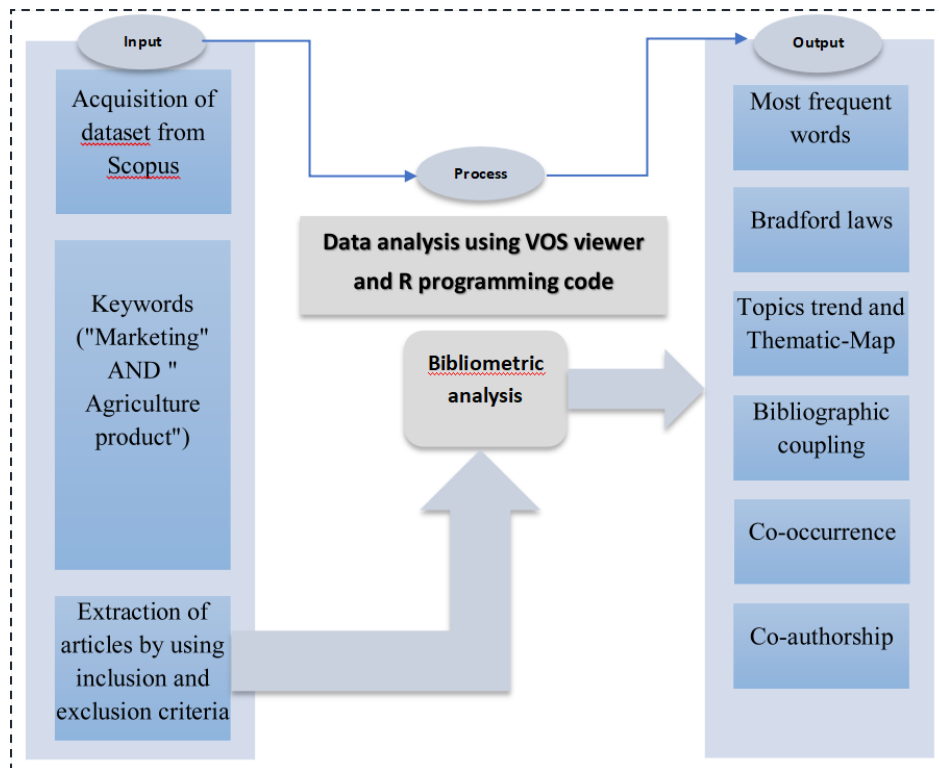


Figure 1. Research methodology process.

4. Results

In this section, we conduct Bradford laws, Topics trend and Thematic-Map, Bibliographic coupling, Co-occurrence, and Co-authorship analysis to meet our study aims.

4.1. Bradford's Laws

Bradford's Law is a fundamental concept in bibliometrics, emphasizing the quantitative analysis of academic publications. Originally formulated by

Samuel C. Bradford in 1934, this law provides a framework for understanding the distribution of articles among scientific publications. Bradford's Law evaluates the productivity and relevance of journals in certain research fields, aiding in the efficient allocation of resources for literature searches and the marketing of agricultural goods. In accordance with Bradford's Law, the articles were categorized into three zones, each comprising multiple journals, with the number of journals in each category being proportional to $1:n:n^2$ (Figure 2).

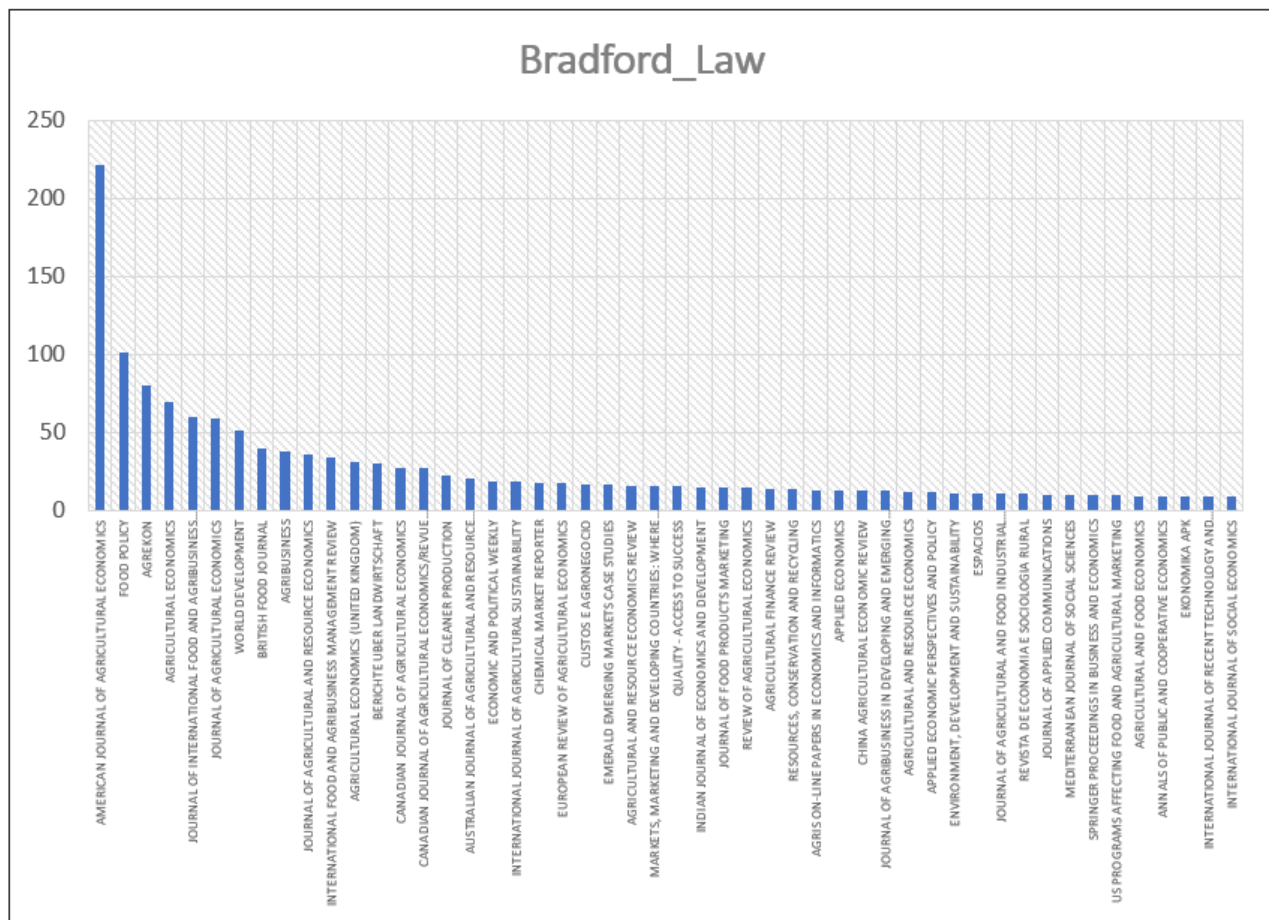


Figure 2. Source clustering through Bradford's Law analysis.

As we can see in the first zone have the American Journal of Agricultural Economics, Food Policy, Aggreko, Agricultural Economics, Journal of International Food and Agribusiness Marketing, Journal of Agricultural Economics, World Development, British Food Journal, Agribusiness, Journal of Agricultural and Resource Economics, International Food and Agribusiness Management Review, Agricultural Economics (United Kingdom), Berichte Uber Landwirtschaft, Canadian Journal of Agricultural Economics, Canadian Journal of Agricultural, and Economics Canadienne D'Agroeconomie.

In addition, the second zone contains the Journal of Cleaner Production, Australian Journal of Agricultural and Resource Economics, Economic and Political Weekly, National Journal of Agricultural Sustainability, Chemical Market Reporter, European Review of Agricultural Economics, Custos e Agronegocio, Emerald Emerging Markets Case Studies, Agricultural and Resource Economics Review, Markets, Marketing and Developing

Countries: Where We Stand and Where We Are Heading, Quality - Access to Success, Indian Journal of Economics and Development, Journal of Food Products Marketing, Review of Agricultural Economics, Agricultural Finance Review, Resources, and Conservation and Recycling.

In the same way, the third zone contains the Tourism Management, African Journal of Agricultural and Resource Economics, Agricultural Research for Sustainable Food Systems in Sri Lanka: Volume 2: A Pursuit for Advancements, Agricultural Transformation in Nepal: Trends, Prospects, and Policy Options, Agriculture and the New Trade Agenda: Creating a Global Trading Environment for Development, Asian Social Science, Australasian Marketing Journal, Cleaner and Circular Bioeconomy Contributions to Management Science, Economic Analysis and Policy, Economic Annals-XXI, Emerging Technologies and Marketing Strategies for Sustainable Agriculture, Environmental and Resource Economics (Table 1).

Table 1. Descriptive Analysis.

| Name | Rank | Frequency | Zone |
|---|------|-----------|--------|
| American Journal of Agricultural Economics | 1 | 221 | Zone 1 |
| Food Policy | 2 | 101 | Zone 1 |
| Agrekon | 3 | 80 | Zone 1 |
| Agricultural Economics | 4 | 70 | Zone 1 |
| Journal of International Food and Agribusiness Marketing | 5 | 60 | Zone 1 |
| Journal of Agricultural Economics | 6 | 59 | Zone 1 |
| World Development | 7 | 51 | Zone 1 |
| British Food Journal | 8 | 40 | Zone 1 |
| Agribusiness | 9 | 38 | Zone 1 |
| Journal of Agricultural and Resource Economics | 10 | 36 | Zone 1 |
| International Food and Agribusiness Management Review | 11 | 34 | Zone 1 |
| Agricultural Economics (United Kingdom) | 12 | 31 | Zone 1 |
| Berichte Uber Landwirtschaft | 13 | 30 | Zone 1 |
| Canadian Journal of Agricultural Economics | 14 | 27 | Zone 1 |
| Canadian Journal of Agricultural Economics/Revue Canadienne D'Agroeconomie | 15 | 27 | Zone 2 |
| Journal of Cleaner Production | 16 | 23 | Zone 2 |
| Australian Journal of Agricultural and Resource Economics | 17 | 21 | Zone 2 |
| Economic and Political Weekly | 18 | 19 | Zone 2 |
| International Journal of Agricultural Sustainability | 19 | 19 | Zone 2 |
| Chemical Market Reporter | 20 | 18 | Zone 2 |
| European Review of Agricultural Economics | 21 | 18 | Zone 2 |
| Custos e Agronegocio | 22 | 17 | Zone 2 |
| Emerald Emerging Markets Case Studies | 23 | 17 | Zone 2 |
| Agricultural and Resource Economics Review | 24 | 16 | Zone 2 |
| Markets, Marketing and Developing Countries: Where We Stand and Where We Are Heading | 25 | 16 | Zone 2 |
| Quality - Access to Success | 26 | 16 | Zone 2 |
| Indian Journal of Economics and Development | 27 | 15 | Zone 2 |
| Journal of Food Products Marketing | 28 | 15 | Zone 2 |
| Review of Agricultural Economics | 29 | 15 | Zone 2 |
| Agricultural Finance Review | 30 | 14 | Zone 2 |
| Resources, Conservation and Recycling | 31 | 14 | Zone 2 |
| Agris Online Papers in Economics and Informatics | 32 | 13 | Zone 2 |
| Applied Economics | 33 | 13 | Zone 2 |
| China Agricultural Economic Review | 34 | 13 | Zone 2 |
| Journal of Agribusiness in Developing and Emerging Economies | 35 | 13 | Zone 2 |
| Agricultural and Resource Economics | 36 | 12 | Zone 2 |
| Applied Economic Perspectives and Policy | 37 | 12 | Zone 2 |
| Environment, Development and Sustainability | 38 | 11 | Zone 2 |
| Espacios | 39 | 11 | Zone 2 |
| Journal of Agricultural and Food Industrial Organization | 40 | 11 | Zone 2 |
| Revista de Economia e Sociologia Rural | 41 | 11 | Zone 2 |
| Journal of Applied Communications | 42 | 10 | Zone 2 |
| Mediterranean Journal of Social Sciences | 43 | 10 | Zone 2 |
| Springer Proceedings in Business and Economics | 44 | 10 | Zone 2 |
| US Programs Affecting Food and Agricultural Marketing | 45 | 10 | Zone 2 |
| Agricultural and Food Economics | 46 | 9 | Zone 2 |
| Annals of Public and Cooperative Economics | 47 | 9 | Zone 2 |
| Ekonomika Apk | 48 | 9 | Zone 2 |
| International Journal of Recent Technology and Engineering | 49 | 9 | Zone 2 |
| International Journal of Social Economics | 50 | 9 | Zone 2 |
| Agricultural Transformation in Nepal: Trends, Prospects, and Policy Options | 126 | 3 | Zone 3 |
| Agriculture and the New Trade Agenda: Creating a Global Trading Environment for Development | 127 | 3 | Zone 3 |
| Asian Social Science | 128 | 3 | Zone 3 |

Table 1. Cont.

| Name | Rank | Frequency | Zone |
|--|------|-----------|--------|
| Australasian Marketing Journal | 129 | 3 | Zone 3 |
| Cleaner and Circular Bioeconomy | 130 | 3 | Zone 3 |
| Contributions to Management Science | 131 | 3 | Zone 3 |
| Economic Analysis and Policy | 132 | 3 | Zone 3 |
| Economic Annals-XXI | 133 | 3 | Zone 3 |
| Economies | 134 | 3 | Zone 3 |
| Emerging Technologies and Marketing Strategies for Sustainable Agriculture | 135 | 3 | Zone 3 |
| Environmental and Resource Economics | 136 | 3 | Zone 3 |
| Etudes Rurales | 137 | 3 | Zone 3 |
| Evaluation and Program Planning | 138 | 3 | Zone 3 |
| Finance & Development | 139 | 3 | Zone 3 |
| Financial and Credit Activity: Problems of Theory and Practice | 140 | 3 | Zone 3 |
| Global Business Review | 141 | 3 | Zone 3 |
| Handbook of Climate Change Resilience, Volume 1–4 | 142 | 3 | Zone 3 |
| International Journal of Scientific and Technology Research | 143 | 3 | Zone 3 |
| International Journal on Food System Dynamics | 144 | 3 | Zone 3 |
| Journal of Co-Operative Organization and Management | 145 | 3 | Zone 3 |

4.2. Word-Cloud

Word-cloud analysis has emerged as an innovative tool in bibliometric research, offering a visual representation of the frequency and relevance of terms throughout a body of academic literature. Word clouds enable the swift recognition of prevailing themes and patterns through graphical representations of textual data, rendering them an indispensable tool for studying the enormous and complex datasets typical of bibliometric research. The most often occurring keywords are marketing, agricultural market, agriculture, agricultural policy, agricultural production, agricultural economics, commerce, smallholder, developing country, United States, *Zea mays*, crop, production, Africa, consumption behavior, price dynamics, food market, India, agricultural products, decision making, Eurasia, agricultural worker, agricultural trade, innovation, maize, costs, agricultural development, Ethiopia, Kenya, article, biotechnology, economics, food security, sub-Saharan Africa, *Triticum aestivum* human, sustainable development, sales, Asia, china, international trade, Animalia, rural economy, economic and social effects, agricultural robots, commodity market, dairy farming, farming system, developing world, and food supply (**Figure 3**).



Figure 3. Word-cloud analysis.

4.3. Trend Topic

Topic trend analysis in bibliometrics is the identification, tracking, and examination of the evolution of research topics over time within a certain academic discipline or across many areas. This approach provides insights into the dynamics of knowledge generation, the formation of new research fields, and the demise of outdated or less relevant subjects. The primary trends in marketing agricultural goods include risk, transaction costs, consumer behavior, agricultural markets, corn, prices, Africa, quality, collective action, marketing strategy, food, Malawi, food security, Kenya, trust, food safety, maize, livestock, agricultural marketing, cooperatives, agricultural products, coffee,

developing countries, logistics, marketing, agriculture, innovation, India, China, smallholder farmers, sustainability, e-commerce, gender, agricultural cooperative,

horticulture, tourism, COVID-19, technology, decision-making, sustainable agriculture, digital marketing, and adoption (**Figure 4**).

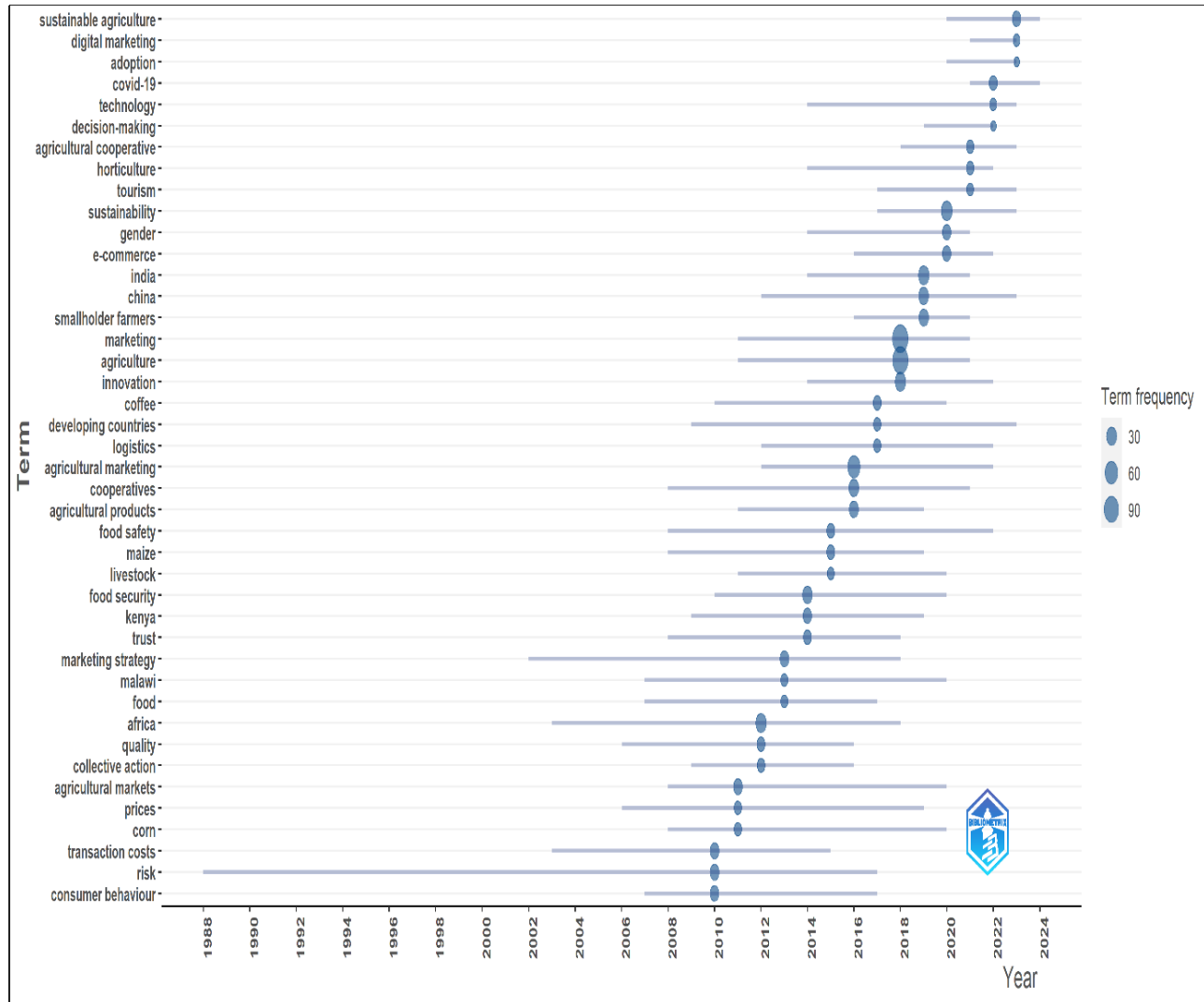


Figure 4. Tred topic analysis.

Source: Author.

4.4. Thematic Map

Thematic map analysis is a potent visualization tool in bibliometrics that provides a thorough overview of the intellectual framework and thematic evolution within a research subject. It categorizes research themes based on their importance and development, allowing researchers to identify core areas, emerging topics, and potential research gaps. Thematic maps are widely em-

ployed for trend analysis, strategic research planning, and fostering multidisciplinary collaboration. A thematic map visually represents the relationship among research themes by organizing them into quadrants. The quadrants are often defined by two axes: density, indicating the internal cohesion of a subject, and centrality, representing the theme's importance within the broader study field. This approach enables the categorization of topics into four principal classifications (**Figure 5**).

4.4.1. Niche Themes

This quadrant represents the extremely developed themes, but not essential to the marketing and agricultural products, such as value chain, performance, and marketing margin.

4.4.2. Motor Themes

In this quadrant, the results illustrate the most advanced subjects in the marketing and agricultural products, such as agricultural markets, sustainable agriculture, and agricultural policy.

4.4.3. Basic Themes

This quadrant presents underdeveloped concepts in the marketing and agricultural products, such as marketing, agriculture, and agricultural marketing

4.4.4. Declining Themes

In this fourth quadrant, depict topics that are neither relevant nor developed in the marketing and agricultural products, agritourism, and risk.

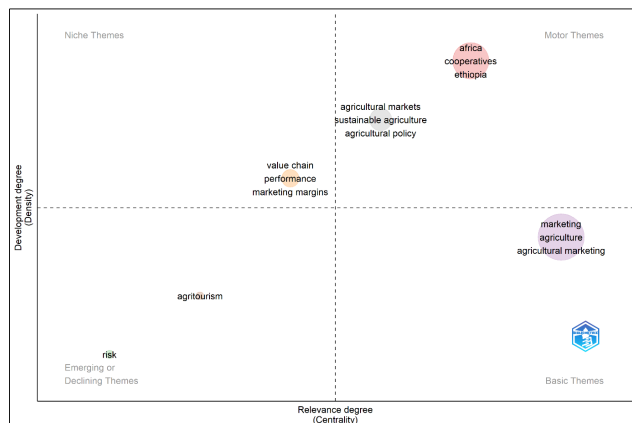


Figure 5. Thematic map analysis.

4.5. Bibliographic Coupling

Bibliographic coupling is a crucial analytical method in bibliometrics that uncovers the conceptual connections between academic articles. It examines the degree to which two or more documents reference each other, providing insights into their thematic or conceptual relationships. Bibliographic coupling has become a crucial tool for mapping the structure of research fields, tracking scientific advancement, and identifying clusters

of related activity. Bibliographic coupling asserts that two papers are cognitively linked if they cite the same set of references. A higher quantity of common references correlates with increased coupling strength. Unlike citation analysis, which examines how others cite a document, bibliographic coupling is a retroactive method that evaluates shared references across existing articles, providing a static depiction of relationships at the time of publication. As we can observe, several countries have the same interest in marketing and agricultural products, such as the USA, France, Germany, Canada, India, Spain, Greece, Italy, among others (Figure 6).

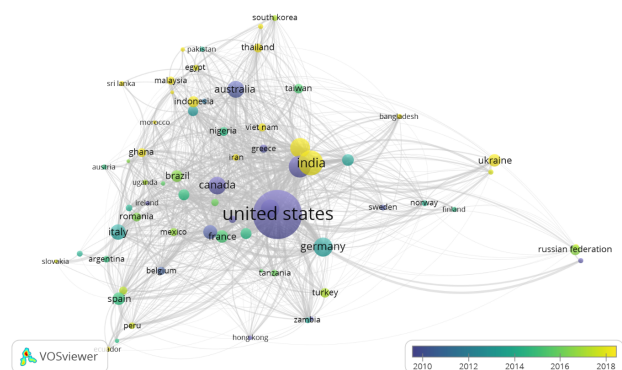


Figure 6. Bibliographic coupling analysis.

4.6. Co-Occurrence

Co-occurrence analysis is a fundamental method in bibliometrics used to investigate and depict the relationships among concepts, words, or entities in academic literature. By examining the co-occurrence frequency of particular entities (such as terms, authors, or nations) within a dataset, researchers can discern patterns and linkages that clarify the intellectual framework of a discipline. This approach has become popular for its ability to clarify knowledge domains, research trends, and the relationships between concepts. This study has many fundamental nodes representing distinct shades (Yellow, Blue, Purple), with each node signifying the frequency of the term in the topics of marketing and agricultural products. As we can observe, there are high levels of co-occurrences between marketing with innovation, agricultural marketing with food, cooperatives with India, farmers with India, and so on (Figure 7).

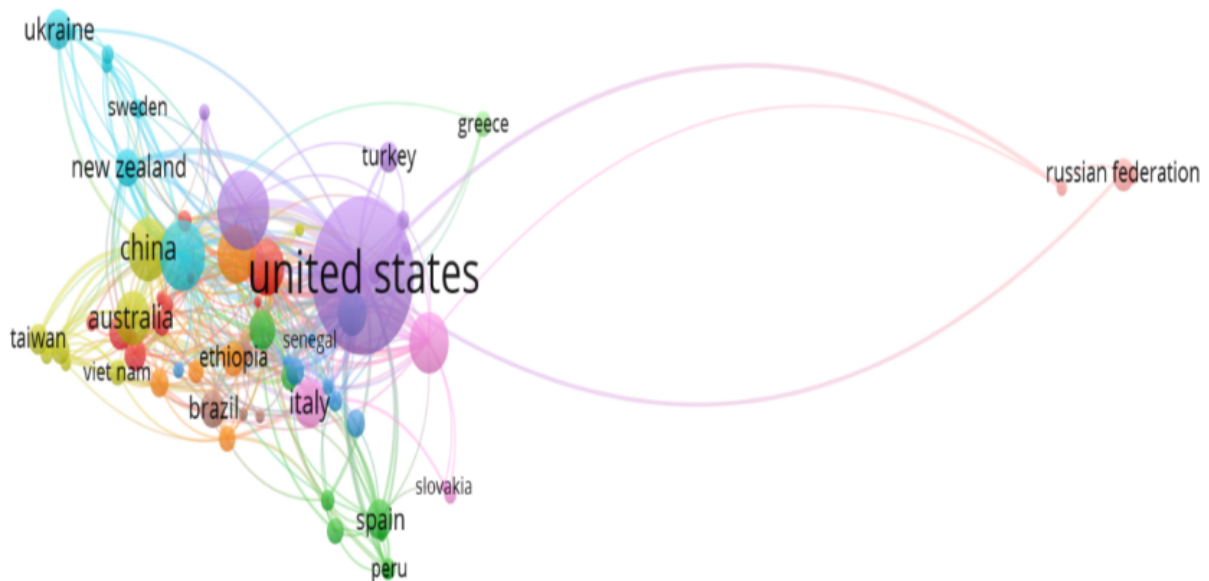


Figure 8. Co-authorship analysis.

5. Discussion

The results of a bibliometric analysis of changes in agricultural product marketing provide substantial practical implications for policymakers, market regulators, and development practitioners^[39–41]. By identifying the predominant themes, including value chain integration, market access, price volatility, digital agriculture, and sustainability, decision-makers may align agricultural policy with current research trends and knowledge deficiencies. If the data indicates an increasing academic focus on digital platforms for agricultural commerce, it suggests a tangible necessity for investment in digital infrastructure and training for farmers and co-operatives. A movement in research towards consumer behaviour, traceability, or certification programs underscores the increasing significance of food quality and safety standards, prompting governments and agricultural marketing boards to amend rules and support systems appropriately. Furthermore, thematic maps and issue patterns might assist in prioritising financing for under-explored yet burgeoning fields, such as climate-smart marketing tactics or blockchain applications in agricultural supply networks. Consequently, bibliometric insights function as a strategic instrument for developing more adaptive, inclusive, and future-oriented agricultural marketing frameworks^[9].

The patterns recognised in agricultural product marketing literature offer essential assistance for farmers, agribusiness professionals, and academic institutions. The bibliometric study identifies the most significant authors, organisations, and nations in agricultural marketing research, therefore promoting information sharing, capacity building, and international collaboration. Agricultural organisations and agritech companies may utilise information on prevailing themes such as e-commerce, mobile marketing, and logistics to implement new methods that enhance profitability and market accessibility. Furthermore, acknowledging the significance of co-authorship and bibliographic coupling enables stakeholders to discern thought leaders and prospective collaborators for joint ventures, knowledge exchange, and cooperative initiatives. This is especially beneficial for improving farmer-market connections, fostering local value enhancement, and expanding effective marketing strategies. Moreover, universities and training institutes can revise their agricultural extension curriculum by integrating contemporary research focal points, thereby guaranteeing that agricultural professionals possess pertinent, evidence-based marketing competencies. The bibliometric method delineates the intellectual framework of the discipline while converting scholarly findings into implementable tactics within the agricultural marketing ecosystem.

This study contributes to the resource-based view by providing an analysis of sustainable improvement in the area of marketing and agricultural products. In addition, this study assists all the agricultural shareholders and stakeholders to have a full picture of the gaps in agricultural products.

The principal trends in marketing agricultural products, specifically risk, transaction costs, consumer behaviour, agricultural markets, maize prices, Africa, and quality, indicate that policymakers and agribusiness stakeholders must implement integrated strategies to tackle the complex challenges encountered by producers and consumers in developing agricultural economies, especially in Africa. A similar literature found the same^[5]. Recognising that elevated transaction costs and market risks may significantly restrict farmers' engagement in formal markets, there is a distinct necessity for focused solutions, including digital platforms, cooperative frameworks, and decentralised storage systems that lower costs and alleviate risks. Furthermore, understanding consumer behaviour and the increasing need for quality assurance underscores the significance of traceability systems and uniform grading procedures that foster confidence and enable pricing premiums based on quality. The volatility of maize prices, exemplifying commodity fluctuations, highlights the necessity for market intelligence systems and crop insurance programs to stabilise earnings. Consequently, synchronising agricultural marketing strategies with these changes fosters a more resilient, efficient, and inclusive agricultural sector, particularly in Africa, where smallholder farmers frequently bear the brunt of inefficiencies and uncertainties within the marketing chain. A similar literature found the same^[6].

6. Conclusion

This research aims to examine advancements in marketing and agricultural products. This study employs bibliometric analysis utilising R Studio and VOS Viewer tools.

The first objective of this study is to demonstrate the most important journal in marketing and agricultural products. According to the study re-

sults, the most important journals in agricultural marketing are the American Journal of Agricultural Economics, Food Policy, Aggreko, Agricultural Economics, Journal of International Food and Agribusiness Marketing, Journal of Agricultural Economics, World Development, British Food Journal, Agribusiness, Journal of Agricultural and Resource Economics, International Food and Agribusiness Management Review, Agricultural Economics (United Kingdom), Berichte Uber Landwirtschaft, Canadian Journal of Agricultural Economics, Canadian Journal of Agriculture, and Economics Canadienne D'Agroeconomie. Additionally, the second objective illustrates the relationship between high levels of co-occurrences between marketing with innovation, agricultural marketing with food, cooperatives with India, and farmers with India.

In the same way, the third objective is to demonstrate major themes in marketing and agricultural products. According to the results, the most important themes are marketing, agricultural market, agriculture, agricultural policy, agricultural production, agricultural economics, commerce, smallholder, and developing country. The final objective aimed to define the trends of marketing and agricultural products. According to the results, the trends of marketing and agricultural products include agricultural markets, sustainable agriculture, and agricultural policy.

The drawback of this study is that the dataset utilised is derived from a single source: Scopus. The Biblioshiny interface cannot amalgamate BibTeX files from various sources; future endeavours may employ an alternative database and eliminate duplication.

Author Contributions

Conceptualization, S.G.; formal analysis, S.G.; writing—original draft preparation, S.G. and R.P.M.; writing—review and editing, S.K.J.P. All authors have read and agreed to the published version of the manuscript.

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Data Availability Statement

The data will be available on request.

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Conflicts of Interest

The authors declare no conflicts of Interest.

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