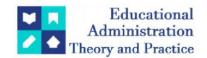
# **Educational Administration: Theory and Practice**

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# **Research Article**



# **Agricultural Marketing: A Bibliometric Analysis**

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#### ARTICLE INFO ABSTRACT

This study analyzed bibliographic data on Agricultural Marketing, using the Scopus database. The analysis revealed trends and areas for further investigation, based on 88 documents published from the database. The study identified fluctuations in publications, countries with high publication rates, universities with extensive records, prominent journals, prolific authors, and frequently occurring keywords in research. The increasing trend in Agricultural Marketing research, particularly in India, suggests a growing interest. Despite modest publication numbers, there are untapped research opportunities. Future studies could use a mixed-methods approach, combining bibliometric and content analysis, to gain a deeper understanding of the subject. Models to improve marketing efficiency in the agricultural sector could also be developed. Recognizing major contributors and key keywords can help in in-depth research and international collaboration.

**Keywords:** Agricultural Marketing, Bibliometric Analysis, RStudio, Scopus, VOS viewer.

# **I.INTRODUCTION**

Agricultural marketing refers to the systematic planning, execution, and management of activities involved in the distribution and exchange of agricultural products from producers to consumers. It encompasses a range of functions including pricing, promotion, packaging, transportation, storage, market analysis, and risk management aimed at optimizing the efficiency and effectiveness of agricultural product transactions. Furthermore, agricultural marketing involves the development and utilization of various marketing channels such as wholesalers, retailers, cooperatives, and direct sales to connect producers with end-users. Additionally, it encompasses the utilization of market information systems, market intelligence, and marketing strategies to anticipate and respond to changes in consumer preferences, market demand, and competitive dynamics within the agricultural sector. Agricultural marketing is a process that starts with a decision to produce a saleable farm commodity. It involves all aspects of market structure or system, both financial and institutional, based on technical and economic considerations. This process includes pre- and post-harvest operations, such as assembling, grading, storage, transportation, and distribution. In simpler terms, agricultural marketing covers the services involved in moving an agricultural product from the farm to the consumer. These services ensure that farmers, producers, and other agricultural businesses get the best price for their products in the global market.

The National Commission on Agriculture defines agricultural marketing as a process that starts with the decision to produce a saleable farm commodity. It encompasses all aspects of market structure (both functional and institutional) based on technical and economic considerations. This process includes pre- and post-harvest operations like assembling, grading, storage, transportation, and distribution.

The research in Agricultural Marketing gained momentum and academicians published many papers on the related topic. So much so, that the consolidation of research on Agricultural Marketing as a scientific discipline depends on understanding the past and studying the evolution of contributions in this field. Consequently, an in-depth study of the literature on the topic becomes imperative. Few bibliometric studies on the topic have been carried out. Kalleya et al. (2023) conducted a bibliometric approach to analyze agricultural marketing research trends. Secondary data from the Scopus database was employed for analysis.

VOSviewer program and Scopus search results analysis function was used for data analysis and visualization. A total of 704 scientific documents published between 1931 to 2022 were analyzed.

The purpose of this article is to investigate Agricultural Marketing trends and problems in the agricultural sector and to identify a network of collaboration between authors based on their belonging to a certain country, who are engaged in research in this field. Furthermore, researchers may use fresh data from the Agricultural Marketing trend as a reference to carry out additional research. To accomplish this objective, the research is directed towards addressing the following tasks:

- 1. The research aims to identify trends in the publication of articles dedicated to Agricultural Marketing.
- 2. The research aims to identify research trends related to Agricultural Marketing.

## **II.METHODOLOGY**

One approach to assessing the outcomes of scientific investigations involves employing bibliometric analysis. Bibliometrics is a branch of library and information science concerned with the quantitative analysis of academic literature, particularly scholarly publications. It involves the statistical analysis of publications, citation patterns, and other bibliographic data to understand various aspects of scholarly communication and evaluate the impact of research outputs. Bibliometrics is often used to assess the productivity and impact of individual researchers, journals, institutions, or even entire fields of study (Cronin, 2002). In the current study, the PRISMA model is being adopted to identify the existing literature and select a relevant article. This model helps to generate a flow diagram that provides a clear and standardized process for selecting and including relevant studies in a systematic review or meta-analysis. It starts with an initial literature search, where a preliminary search in databases and registers retrieves a certain number of studies. These studies are then screened based on their titles and abstracts, resulting in the exclusion of irrelevant articles. After this initial screening, the remaining articles undergo a thorough assessment for relevance and quality. Fig.1 shows the PRISMA framework which is being adopted in the current study.

After the selection of the relevant studies, a bibliometric analysis is performed to see the publication type, volume of publications, average citations per year, most influential journals etc.

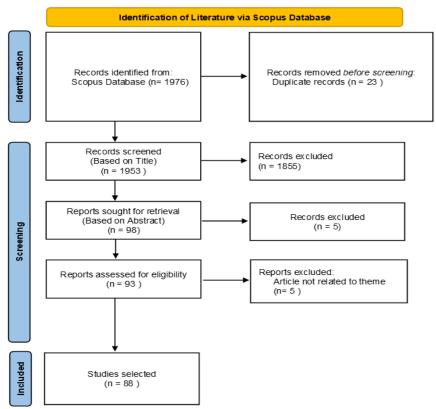


Fig.1: PRISMA Flow Diagram (Authors Compilation)

#### **Database**

Scopus Database being a comprehensive database has been chosen to retrieve the publications for the present study. Scopus offers flexible search options, allowing for queries based on terms within title, abstracts, journal names, author names, or affiliations. Furthermore, exporting data from Scopus to other programs is relatively straightforward, simplifying the process of data analysis and integration with other tools.

# **Search Strategy**

A bibliometric study begins by making decisions regarding the search strategy. It is important to use appropriate and comprehensive search terms related to the topic. Also, Scopus offers options to search the metric in titles, abstracts, texts, keywords. In the present study the Data is being retrieved from the Scopus database in the search within option by selecting Article title, Abstract, Keywords, and in search documents by doing the search term "Agricultural Marketing". Further, the following filtrations strategy is being employed to identify and select the most relevant studies in the existing literature.

Subject Area: Social Sciences

Economics, Econometrics, and Finance Business Management, Accounting

Multidisciplinary

Document Type: Article, Book Chapter, Conference Paper, Book

Source Type: Journal, Book, Conference Proceeding

Language: English

Year/ Time Span: 2010-2023 (13 Years)

## **Tools and Techniques**

The Scopus database, renowned for its comprehensive coverage of scholarly literature, facilitates the preservation of bibliographic data for subsequent analysis. This invaluable information is meticulously stored in the widely supported .csv format aligning seamlessly with the specifications of the RStudio and VOSviewer software. This format ensures accessibility and compatibility, allowing researchers and analysts to delve into the wealth of bibliographic content and derive meaningful insights through the powerful visualization capabilities offered by RStudio and VOSviewer.

The current study utilizes the PRISMA approach to find the most pertinent studies in the existing literature that are indexed in the Scopus database. RStudio is being utilized to evaluate the .csv format file extracted from the Scopus database. In addition, the study utilized VOSviewer software to conduct keyword analysis. The study utilized the VOSviewer software to construct network maps illustrating keyword connectivity, author collaboration by country, and the temporal dimension of research. The initial search result showed 1976 research articles, out of which 23 article are found to be a duplicate. The author further screened the retrieved data based on the title and abstract and found 1865 research articles to be irrelevant and not related to the theme. Finally, 88 articles are being selected for the purpose of analysis.

# III.RESULT AND DISCUSSION

# **Descriptive Analysis**

The descriptive analysis in Table 2 provides valuable insights into a body of research spanning from 2010 to 2023, drawing from 71 sources including journals, books, and other references. The annual growth rate of 16.15% suggests a significant expansion of research output over the specified timespan, indicating a dynamic and evolving field of study. The document average age of 6.51 years indicates that, on average, the publications included in the analysis were published roughly 6 and a half years ago. This suggests a focus on relatively recent literature, with some older references likely included as well. The average citations per publication, standing at 6.886, demonstrate a moderate level of impact and influence within the scholarly community. This suggests that the research output has garnered attention and recognition within its respective field. With a total of 3473 references and 88 publications, it's evident that the analysis encompasses a broad range of sources, reflecting a comprehensive review of existing literature. The involvement of 207 authors, with 23 single-authored publications and an average of 2.5 co-authors per publication, indicates a collaborative approach to research within the field. This collaborative nature is further highlighted by the fact that 25% of publications feature international co-authorships, suggesting a global perspective and cross-border collaboration in scholarly endeavors.

**Table: 1 Descriptive Analysis** 

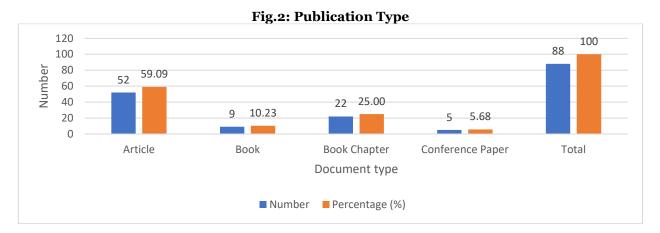
Table: 1 Descriptive Analysis		
Criteria	Quantity	
Timespan	2010-2023	
Sources (Journals, Books, etc.)	71	
Total Publications	88	
Annual Growth Rate %	16.15	
Document Average Age	6.51	
Average citations per publication	6.886	
References	3473	
Authors	207	
Single-authored publications	23	
Co-authors per publication	2.5	
International co-authorships (%)	25	

# **Publication Type**

Table 2 and Figure 2 depict the distribution of document types within the analysed publications. The findings reveal that majority of the publications are in the form of articles (59.09%). This indicate the research articles are the most prevalent form of documentation in this domain. Additionally, significant portion of the publications consist of book chapters (25%) and book (10.23%) followed by the conference papers (5.68%).

**Table:2 Publication Type** 

Document Type	Number	Percentage (%)
Article	52	59.09
Book	9	10.23
Book Chapter	22	25.00
Conference Paper	5	5.68
Total	88	100

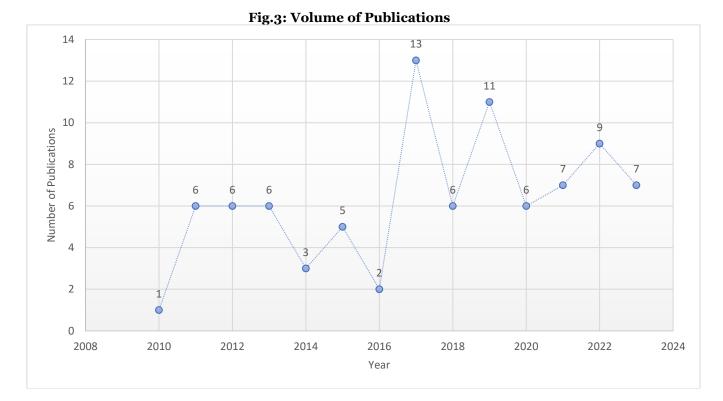


### **Volume of Publications**

Table 3 indicates an upward trend in the number of articles published per year, suggesting a growing interest among researchers in the field of Agricultural Marketing. The research data indicates a collective count of 88 papers. The peak year for publication output was 2017 with 13 papers published. This data demonstrates the growing interest in the trend of Agricultural Marketing. From 2010 to 2016, the number of publications related to Agricultural Marketing did not increase at all. In the year 2019 and 2023, the number of publications increased. However, in between the number of publications is very small. Figure 3 visually represents the increasing volume of publications on the topic, highlighting the rising trend. The number of articles published varies widely from year to year, ranging from as low as 1 in 2010 to as high as 13 in 2017. Despite fluctuations, there are also years where the number of articles published remains relatively stable, such as 2012, 2013, 2018, and 2020. Fluctuations in publication volume could be influenced by various factors such as funding availability, research trends, conference schedules, and the emergence of new technologies or methodologies. The data from 2021, 2022 and 2023 show slight increases compared to the preceding years, indicating potential growth or stability in research activity during those years. In summary, Table 3 provides insights into the variability and trends in the volume of publications over the specified 14-year period, highlighting both peak years of activity and periods of stability or decline.

**Table 3: Volume of Publications** 

Year	Articles
2010	1
2011	6
2012	6
2013	6
2014	3
2015	5
2016	2
2017	13
2018	6
2019	11
2020	6
2021	7
2022	9
2023	7



# **Average Citations Per Year**

Table 4 presents data on the average number of citations per year for articles published in each respective year, enabling researchers to gauge the influence of their work over time and identify trends in citation patterns. The mean total citations per article varies widely across years, ranging from 0 in 2010 to 24.60 in 2015. This indicates variations in the impact or influence of articles published in different years. The average number of citations per year (MeanTCperYear) provides a more standardized measure of impact, considering the number of years since publication. Years with higher average citations per year indicate articles that have sustained impact over time. Examining the MeanTCperYear column reveals trends in citation impact over time. The number of citable years provides insight into the longevity of impact for articles published in different years. Articles published earlier have more citable years, while recent publications have fewer years to accumulate citations.

**Table: 4 Average Citations Per Year** 

Year	MeanTCperArt	N	MeanTCperYear	CitableYears
2010	0.00	1	0.00	15
2011	12.67	6	0.90	14
2012	1.83	6	0.14	13
2013	6.33	6	0.53	12
2014	7.33	3	0.67	11
2015	24.60	5	2.46	10
2016	11.00	2	1.22	9
2017	4.85	13	0.61	8
2018	14.67	6	2.10	7
2019	3.27	11	0.54	6
2020	12.00	6	2.40	5
2021	2.71	7	0.68	4
2022	2.89	9	0.96	3
2023	1.43	7	0.72	2

# **Most Influential Journal**

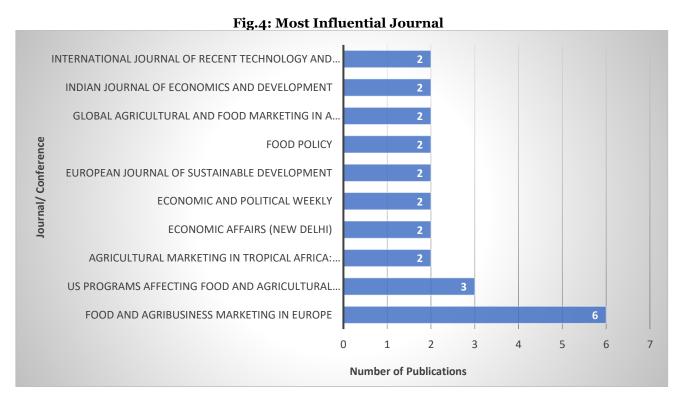
Table 5 presents data on the Top 10 influential journals or conferences based on the number of publications and their percentage contribution. Leading Journal: "Food and Agribusiness Marketing in Europe" stands out as the most influential journal or conference with 6 publications, constituting 24% of the total publications in the dataset. Several other journals or conferences also make notable contributions, each accounting for a smaller percentage of the total publications. These include "US Programs Affecting Food and Agricultural Marketing," "Agricultural Marketing in Tropical Africa: Contributions of the Netherlands," "Economic Affairs (New Delhi)," "Economic and Political Weekly," "European Journal of Sustainable Development," "Food

Policy," "Global Agricultural and Food Marketing in a Global Context: Advancing Policy, Management, and Innovation," "Indian Journal of Economics and Development," and "International Journal of Recent Technology and Engineering."

The table provides a total of 25 publications, with each journal's contribution expressed as a percentage of this total.

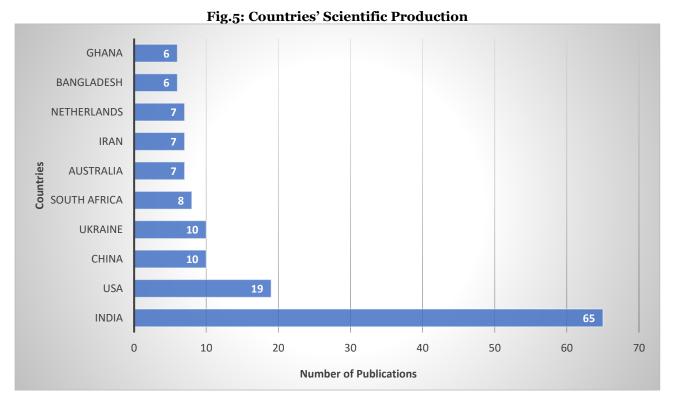
**Table:5 Most Influential Journal** 

Name of the Journal/ Conference	Number of	Percentage
	<b>Publications</b>	
FOOD AND AGRIBUSINESS MARKETING IN EUROPE	6	24%
US PROGRAMS AFFECTING FOOD AND AGRICULTURAL MARKETING	3	12%
AGRICULTURAL MARKETING IN TROPICAL AFRICA: CONTRIBUTIONS		
OF THE NETHERLANDS	2	8%
ECONOMIC AFFAIRS (NEW DELHI)	2	8%
ECONOMIC AND POLITICAL WEEKLY	2	8%
EUROPEAN JOURNAL OF SUSTAINABLE DEVELOPMENT	2	8%
FOOD POLICY	2	8%
GLOBAL AGRICULTURAL AND FOOD MARKETING IN A GLOBAL		
CONTEXT: ADVANCING POLICY, MANAGEMENT, AND INNOVATION	2	8%
INDIAN JOURNAL OF ECONOMICS AND DEVELOPMENT	2	8%
INTERNATIONAL JOURNAL OF RECENT TECHNOLOGY AND		
ENGINEERING	2	8%
Total	25	100



# **Countries' Scientific Production**

Numerous countries have released noteworthy research on Agricultural Marketing. An examination is undertaken to assess the outcomes and impacts of the leading countries in this field from 2010 to 2023. Figure 5 presents the published findings from the top 10 countries in the context of Agricultural Marketing, arranged by the quantity of papers. In instance of a tie, priority is given to the country with the most recently published work.



# **Corresponding Author's Countries**

Table 6 presents the distribution of corresponding authors by Country for a set of articles. With 15 articles, India has the highest number of corresponding authors. The high number of corresponding authors from India suggests a significant level of research activity and influence from Indian scholars in the field covered by these articles. It indicates that India might be actively engaged in the specific area of research represented by these articles, possibly indicating a strong academic presence or focus on these topics within the country. The USA follows with 4 articles. While fewer in number compared to India, the USA still demonstrates a notable contribution to the research represented in the articles. Ghana, Australia, Canada, China each have 2 or 3 corresponding authors, indicating a moderate level of involvement in the research represented by the articles. Bangladesh, Benin, Hungary, Indonesia each have 1 corresponding author. The inclusion of countries like Bangladesh, Benin, Hungary and Indonesia as corresponding author countries indicates the emergence of research hubs in these regions or countries. This suggests that there is a growing interest and capacity for research in these areas, which is reflected in their contributions to academic publications. The relatively low number of corresponding authors from some countries (e.g., USA, Australia, Canada) compared to India could indicate potential areas for future collaboration and engagement among researchers from these countries and those from countries with higher representation. The presence of authors from diverse countries such as the USA, Ghana, Australia, Canada, China, Bangladesh, Benin, Hungary, and Indonesia suggests potential international collaboration in the research. This diversity in authorship may indicate that the research topics addressed in these articles are of global interest and require collaboration among scholars from different parts of the world to explore comprehensively.

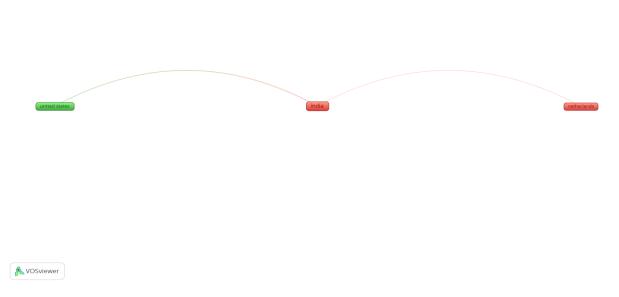
**Table:6 Corresponding Author's Countries** 

Table: 0 Corresponding Author's Countries		
Country	Articles	
INDIA	15	
USA	4	
GHANA	3	
AUSTRALIA	2	
CANADA	2	
CHINA	2	
BANGLADESH	1	
BENIN	1	
HUNGARY	1	
INDONESIA	1	

# Bibliographic coupling of countries

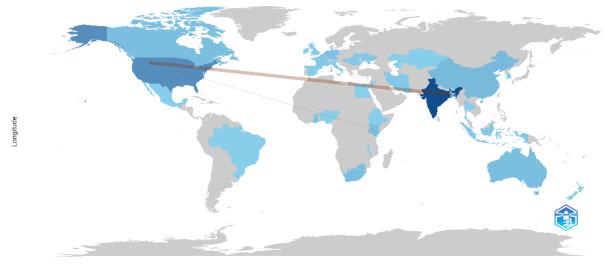
Figure 6 illustrates the outcomes of bibliometric connections. Each frame within the figure corresponds to a specific nation, with the size of the circle reflecting its productivity - the larger the circle, the more prolific the nation. Notably, India stands out as the most productive country, showcasing significant bibliometric connections with other nations. The size of India's circle suggests it has the substantial and crucial bibliometric ties with other countries in the context of the study.

Fig.6: Bibliographic coupling of countries



Regarding the nations, Figure 7 illustrates the co-authorship associations. It is important to note that co-authorship provides insights into both the scale of a country's publications and its significant collaborations with other nations. In Figure 7, the absence of co-authorship connections between the represented countries indicates a lack of collaborative writing or joint authorship in the analysed period or on the specified topic. The absence of lines or links between the countries suggests that each country conducted its research or produced publications independently, without engaging in collaborative efforts in terms of authorship. In the future, there may be a need for collaboration between countries to create new research related to Agricultural Marketing. Therefore, it is hoped that in future it will be able to create new Agricultural Marketing opportunities for farmers more widely.

**Fig.7: Countries' Collaboration World Map**Country Collaboration Map



Latitude

### a. The Most Productive Institutes and Universities

The bibliometric analysis reveals that Agricultural Marketing research is minimal, with only five published documents from Delhi Technological University and Department of Agricultural Economics. The secondplaced universities are Zhejiang University, University of Queensland, University of Energy and Natural Resources, and Bogor Agricultural University, followed by Punjab Agricultural University, Indian Institute of Technology Kharagpur, Bangladesh Agricultural University, and Anna University, each with three published documents.

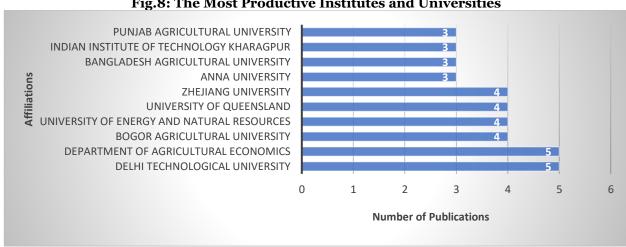


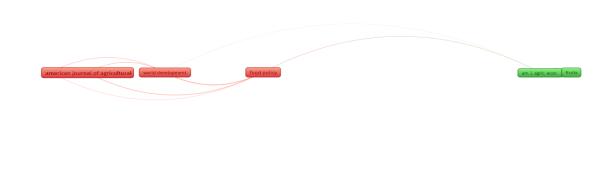
Fig.8: The Most Productive Institutes and Universities

To advance research in Agricultural Marketing, strategic steps include universities stimulating interest through incentives and financial support, collaboration among universities, involving the agricultural industry in research, offering specialized education and training programs, obtaining additional financial resources through collaboration with governments and non-profit organizations, focusing on specific challenges and opportunities, institutional support and advocacy for the government, and international collaboration to provide a global perspective.

#### b. Leading Journal

Another crucial aspect of the bibliometric review involves examining the most influential sources, specifically those conducting a higher volume of research in Agricultural Marketing within the Agricultural domain than their counterparts. The absence of a dominant journal in co-citation indicates that there is no specific journal significantly cited or connected with other journals in the research on Agricultural Marketing. This can be attributed to various factors, including the diversity of topics or research methods or the lack of a particular journal that distinctly leads to that domain.

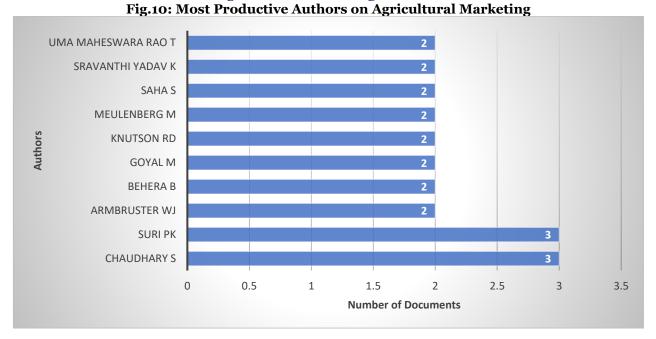
Fig.9: Co-Citation of Leading Journal





Co-citation analysis reveals the absence of a dominant journal in Agricultural Marketing. This reflects the diversity of research and the potential interdisciplinary nature of this field. The lack of journal dominance also indicates that the field is still evolving and that researchers have not converged around a central publication. This may be linked to the dynamic nature of Agricultural Marketing and its ongoing exploration. As the field grows, it will be interesting to see if specific journals become focal points and how co-citation patterns develop over time.

# c. Most Productive Authors on Agricultural Marketing



To identify the leading contributors in the field of Agricultural Marketing, Figure 10 visualizes the outcomes. Chaudhary S and Suri Pk have contributed equally, each with 3 articles. This suggests a consistent output and involvement in the research represented by these articles. They may be prolific researchers or have a specific focus within their field. Armbruster Wj, Behera B, Goyal M, Knutson Rd, Meulenberg M, Saha S, Sravanthi Yadav K, Uma Maheswara Rao T have each contributed 2 articles. While not as prolific as those with 3 articles, their contribution is still notable, indicating ongoing involvement in research and potentially diverse areas of expertise or interests.

The distribution of publications among these contributors provides insights into the collaborative and multidisciplinary nature within the research community of Agricultural Marketing. The varying publication counts also encourage further exploration regarding specific focus areas, methodologies, and the impact of their contributions. This analysis helps map the landscape of influential contributors, opening opportunities for potential collaboration, identifying research gaps, and gaining a deeper understanding of emerging trends in this evolving field.

# d. Most Frequent Words

Table 7 presents a list of the most frequent words along with their respective occurrences in a dataset or corpus. The term "marketing" appears most frequently in the dataset with 13 occurrences, indicating a significant focus on strategies, processes, and activities related to promoting and selling products or services, likely within the context of agriculture or related sectors. Agricultural market" is the second most frequent term with 10 occurrences, suggesting a substantial emphasis on the marketplace dynamics, trading, pricing, and distribution of agricultural products. The term "agriculture" appears with moderate frequency with 6 occurrences, indicating a general focus on farming practices, crop cultivation, livestock management, and other agricultural activities. The presence of "India" suggests a specific geographic focus, possibly indicating studies, discussions, or analyses centered around agricultural practices, policies, or issues within the Indian context. The term "commerce" implies a broader aspect of trade, exchange, and economic activities beyond agriculture, suggesting a multidisciplinary approach or consideration of broader economic implications. The presence of "information and communication technology" highlights the integration of technological tools and digital platforms within agricultural practices, signaling a focus on innovations, advancements, or applications in this domain. Organic farming" suggests a specific interest in sustainable agricultural practices, emphasizing natural inputs, environmental conservation, and the production of organic food. The term "agricultural cooperative" indicates a focus on collective efforts, collaboration, and shared resources among farmers or agricultural stakeholders for mutual benefit and development. Agricultural development suggests a focus on initiatives, policies, or strategies aimed at improving and enhancing agricultural productivity, sustainability, and socio-economic outcomes. "Agricultural economics" signifies the application of economic principles and analyses to agricultural production, distribution, and consumption, reflecting a consideration of economic factors and policies within the agricultural sector.

**Table 7: Most Frequent Words** 

Words	Occurrences
Marketing	13
Agricultural market	10
Agriculture	6
India	5
Commerce	3
Information and communication technology	3
Organic farming	3
Agricultural cooperative	2
Agricultural development	2
Agricultural economics	2

Fig.11: Wordcloud

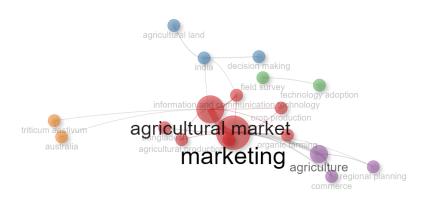


The most frequently occurring words are illustrated in Figure 11 as a WordCloud picture.

### **Co-occurrence Network**

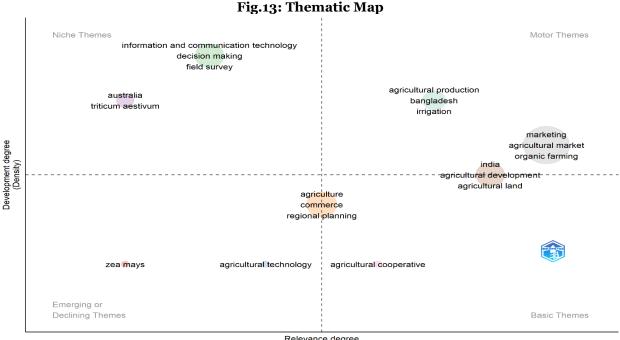
The co-occurrence network visualizes relationships between terms or concepts based on their co-occurrence patterns within a dataset. Nodes represent terms, and edges represent co-occurrence relationships. In the Figure 12, nodes are likely positioned based on their connectivity and proximity to each other, with more closely related nodes placed closer together. The size or color of nodes may indicate attributes such as betweenness centrality, closeness centrality, or PageRank, providing insights into the importance or centrality of nodes within the network. In this specific network, "agricultural market" appears to be a central and influential node, serving as a bridge between different clusters or groups of terms. "Marketing" and "information and communication technology" also appear to be important nodes within the network, indicating their significance in the context of the dataset. Overall, the co-occurrence network helps visualize and understand the relationships and structures present within the dataset, highlighting key terms or concepts and their interconnections.

Fig.12: Co-occurrence Network



# **Thematic Map**

The Figure 13 represents a thematic map derived from a dataset using RStudio software, where occurrences of specific terms are clustered based on their thematic relevance. Each term is assigned to a cluster based on thematic similarity or relevance. Clustering helps group together terms that are conceptually related or share common themes. The cluster 1 likely focuses on terms related to a specific crop, "Zea Mays," which is the scientific name for maize. The terms within this cluster have high betweenness centrality, indicating their importance as connectors within the network. Cluster 2 encompasses terms related to technology adoption and innovation in agriculture. The terms within this cluster have moderate betweenness centrality, suggesting their role in connecting different thematic areas. Information and Communication Technology (ICT) cluster revolves around terms related to ICT and its applications in agriculture, such as decision making, field survey, and technology adoption. These terms have high betweenness centrality, indicating their pivotal role as bridges between different thematic clusters. Cluster 4 represents terms associated with Australia, which could include specific crops like "Triticum Aestivum" (wheat) and other agricultural aspects. The terms in this cluster have moderate betweenness centrality. Cluster 5 cluster encompasses terms related to agriculture and commerce, reflecting the economic aspects of agricultural activities. The term "agriculture" has the highest betweenness centrality, indicating its crucial role in connecting different thematic clusters within the network. Overall, the thematic map provides insights into the thematic structure of the dataset or corpus, highlighting key topics and their interconnections based on co-occurrence patterns.



Relevance degree (Centrality) Table: 8 Top 5 Most Global Cited Documents

Sl.No	Title	Authors	Citation Count
1	Agricultural marketing by smallholders in Kenya: A comparison of maize, kale and dairy	John Olwande, Melinda Smale, Mary K. Mathenge, Frank Place, Dagmar Mithofer	77
2	Marketing Channels for Local Food	Iryna Printezis, Carola Grebitus	58
3	Agricultural marketing cooperatives with direct selling: A cooperative–non-cooperative game	Maxime Agbo , Damien Rousseliere , Julien Salanie	42
4	Adoption of Agricultural E-Marketing: Application of the Theory of Planned Behavior	Seyed Jaber Alavion,Mohammad Sadegh Allahyari,Ahmad Shukri Al- Rimawi & Jhalukpreya Surujlal	30
5	The Efficiency of Agricultural Marketing Cooperatives in China's Zhejiang Province	Zuhui Huang, Yuzhi Fu, Qiao Liang, Yu Song, Xuchu Xu	28

This table 8 presents the Top 5 most globally cited documents in the field of Agricultural Marketing. A paper titled "Agricultural marketing by smallholders in Kenya: A comparison of maize, kale, and dairy" authored by John Olwande, Melinda Smale, Mary K. Mathenge, Frank Place, and Dagmar Mithofer, has received the highest number of citations (77) globally. It explores agricultural marketing practices among smallholder farmers in Kenya, specifically comparing marketing strategies for different agricultural products. The paper titled "Marketing Channels for Local Food" has received 58 citations authored by Iryna Printezis and Carola Grebitus, this document focuses on marketing channels for local food. It has received a substantial number of citations globally, indicating its importance in the field of agricultural marketing, particularly concerning local food systems. Another paper titled "Agricultural marketing cooperatives with direct selling: A cooperative-non-cooperative game" has received a citation of 42 authored by Maxime Agbo, Damien Rousseliere, and Julien Salanie, explores agricultural marketing cooperatives with direct selling using cooperative-non-cooperative game theory. It has garnered significant attention and citations globally, reflecting its contribution to understanding cooperative marketing strategies. The paper titled "Adoption of Agricultural E-Marketing: Application of the Theory of Planned Behavior" authored by Seyed Jaber Alavion, Mohammad Sadegh Allahyari, Ahmad Shukri Al-Rimawi, and Jhalukpreya Suruilal has received 30 citations. This paper examines the adoption of agricultural e-marketing using the Theory of Planned Behavior. It has been cited multiple times globally, indicating its relevance to understanding factors influencing the adoption of e-marketing in agriculture. Lastly, the paper titled "The Efficiency of Agricultural Marketing Cooperatives in China's Zhejiang Province" authored by Zuhui Huang, Yuzhi Fu, Qiao Liang, Yu Song, and Xuchu Xu has received 28 citations. In the study, it assesses the efficiency of agricultural marketing cooperatives in China's Zhejiang Province. Despite being the lowest in terms of citation count among the top 5, it still has received a considerable number of citations globally, highlighting its contribution to understanding the performance of agricultural marketing cooperatives in a specific region.

The highly cited documents in agricultural marketing significantly contribute to the field by addressing strategies, cooperative models, e-marketing adoption, and efficiency assessments in various geographical contexts, influencing academic research and practice within the field.

## **IV.CONCLUSION**

The study reveals a significant increase in research on Agricultural Marketing worldwide, with 88 publications authored by 207 individuals over 13 years. These publications are published in various formats, including journals, books, conference papers, and book chapters. The volume of publications has risen, with the highest number of 13 published in 2017 and 2019 and 2023, primarily in articles. This research highlights the importance of Agricultural Marketing in the field. The "Food and Agribusiness Marketing in Europe" journal or conference is the most influential, with 6 publications accounting for 24% of total publications. The mean citations per article vary across years, with India contributing the most publications (65) and the USA having 19 publications. India has the highest number of corresponding authors with 15 articles. The study reveals a lack of co-authorship connections between the countries represented, indicating a lack of collaborative writing or joint authorship during the analyzed period or on the specified topic. Delhi Technological University is the most productive institute in Agricultural Marketing research, with 5 published documents. There is no dominant journal in co-citation, suggesting no significant citation or connection between journals. Chaudhary S and Suri Pk have the highest number of publications. Identifying key researchers and frequently occurring keywords is crucial for in-depth research in Agricultural Marketing. Further investigation into leading methodologies and the development of keywords may become a major

focus. The term "marketing" appears most frequently in the dataset with 13 occurrences, indicating a significant focus on strategies, processes, and activities related to promoting and selling products or services, likely within the context of agriculture or related sectors. Agricultural market" is the second most frequent term with 10 occurrences, suggesting a substantial emphasis on the marketplace dynamics, trading, pricing, and distribution of agricultural products. The study utilizes WordCloud visualization to display commonly occurring words, and RStudio for creating a Co-occurrence network to visualize relationships between terms within a dataset. It also presents a thematic map, clustering specific term occurrences based on their thematic relevance. The study reveals the top 5 most globally cited documents in agricultural marketing, with a paper by John Olwande, Melinda Smale, Mary K. Mathenge, Frank Place, and Dagmar Mithofer receiving the highest number of citations (77). The paper compares marketing strategies for maize, kale, and dairy among smallholder farmers in Kenya. The study on Agricultural Marketing has several limitations, including focusing solely on published literature and overlooking unpublished ones, potentially introducing bias. It also focuses on quantitative data without considering the quality or content of the publications. Future research could use a mixed-methods approach, combining bibliometric and content analysis, to gain a deeper understanding. Additionally, the study only considers publications with the word 'Agricultural Marketing' in the title, limiting its scope. Therefore, future research should aim for a comprehensive and inclusive approach.

### **V.REFERENCES**

- 1. Acharya, S. S. (1998). Agricultural marketing in India: Some facts and emerging issues. Indian journal of Agricultural economics, 53(3), 311-332.
- 2. Acharya, S. S. (2004). Agricultural marketing in India. Oxford and IBH publishing.
- 3. Agbo, M., Rousselière, D., & Salanié, J. (2015). Agricultural marketing cooperatives with direct selling: A cooperative—non-cooperative game. *Journal of Economic Behavior & Organization*, 109, 56-71.
- 4. Alavion, S. J., Allahyari, M. S., Al-Rimawi, A. S., & Surujlal, J. (2017). Adoption of agricultural Emarketing: Application of the theory of planned behavior. *Journal of international food & agribusiness marketing*, 29(1), 1-15.
- 5. Armbruster, W. J. (1997). Challenges for agricultural economists facing the twenty-first century. *American journal of agricultural economics*, 79(5), 1373-1382.
- 6. Armbruster, W. J., & Knutson, R. D. (2012). Evolution of agricultural and food markets. In *US programs affecting food and agricultural marketing* (pp. 3-10). New York, NY: Springer New York.
- 7. Armbruster, W. J., & Knutson, R. D. (Eds.). (2012). US programs affecting food and agricultural marketing (Vol. 38). Springer Science & Business Media.
- 8. Asenso-Okyere, K., Davis, K., & Aredo, D. (2008). Advancing agriculture in developing countries through knowledge and innovation: Synopsis of an international conference. Intl Food Policy Res Inst.
- 9. Basumatary, S., Basumatary, J., Boro, K., & Chanu, A. I. (2023). Behavioural Biases and Its Impact on Investment Decision-Making: A Review Based on Bibliometric Analysis. Journal of Survey in Fisheries Sciences, 10(3), 903-909.
- 10. Behera, B. S., Panda, B., Behera, R. A., Nayak, N., Behera, A. C., & Jena, S. (2015). Information communication technology promoting retail marketing in agriculture sector in India as a study. *Procedia Computer Science*, 48, 652-659.
- 11. Borgman, C. L., & Furner, J. (2002). Scholarly communication and bibliometrics. Annual review of information science and technology, 36(1), 1-53.
- 12. Boro, K., & Barman, R. D. Agricultural Marketing System In North-East India: Problems And Prospects With Special Reference To Assam.
- 13. Chand, R. (2012). Development policies and agricultural markets. Economic and Political Weekly, 53-63.
- 14. Chaudhary, S., & Suri, P. K. (2020). Examining Adoption of eNAM Platform for Transforming Agricultural Marketing in India. *Transforming Organizations Through Flexible Systems Management*, 243-256.
- 15. Fisher, D. U., & Knutson, R. D. (2013). Uniqueness of agricultural labor markets. American Journal of Agricultural Economics, 95(2), 463-469.
- 16. Goyal, A. (2010). Information, direct access to farmers, and rural market performance in central India. *American Economic Journal: Applied Economics*, 2(3), 22-45.
- 17. Huang, Z., Fu, Y., Liang, Q., Song, Y., & Xu, X. (2013). The efficiency of agricultural marketing cooperatives in China's Zhejiang province. *Managerial and Decision Economics*, 34(3-5), 272-282.
- 18. Kalleya, C., Azzahri, E. F., Sanjaya, A. N., Purnomo, A., Javandira, C., Rosyidah, E., & Herman, R. T. (2023). Agricultural marketing research: A retrospective of domain and knowledge structure. E3S Web of Conferences, 426, 01071. Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. Journal of Informetrics, 11(4), 959-975.
- 19. Kalleya, C., Azzahri, E. F., Sanjaya, A. N., Purnomo, A., Javandira, C., Rosyidah, E., & Herman, R. T. (2023). Agricultural marketing research: A retrospective of domain and knowledge structure. In E3S Web of Conferences (Vol. 426, p. 01071). EDP Sciences.

- Kaynak, E., & Meulenberg, M. (1994). Food and agribusiness marketing in Europe (Vol. 5, No. 3). CRC Press.
- 21. Kohls, R. L., & Uhl, J. N. (2002). Marketing of agricultural products (No. Ed. 9). Prentice-Hall Inc..
- 22. Larivière, V., Sugimoto, C. R., & Cronin, B. (2012). A bibliometric chronicling of library and information science's first hundred years. Journal of the American Society for Information Science and Technology, 63(5), 997-1016.
- 23. Martinho, V. J. P. D. (2020). Agricultural entrepreneurship in the European Union: Contributions for a sustainable development. Applied sciences, 10(6), 2080.
- 24. McBurney, M. K., & Novak, P. L. (2002, September). What is bibliometrics and why should you care?. In Proceedings. IEEE international professional communication conference (pp. 108-114). IEEE.
- 25. Olwande, J., Smale, M., Mathenge, M. K., Place, F., & Mithöfer, D. (2015). Agricultural marketing by smallholders in Kenya: A comparison of maize, kale and dairy. *Food policy*, *52*, 22-32.
- 26. Pinstrup-Andersen, P. (2002). Food and agricultural policy for a globalizing world: Preparing for the future. American Journal of Agricultural Economics, 84(5), 1201-1214.
- 27. Printezis, I., & Grebitus, C. (2018). Marketing channels for local food. Ecological Economics, 152, 161-171.
- 28. Saha, S., Sinha, C., & Saha, S. (2023). Agricultural Marketing in India: Challenges, Policies and Politics. *South Asian Journal of Macroeconomics and Public Finance*, 22779787231209169.
- 29. Sen, S., & Madhu, B. (2017). International journal of engineering sciences & research technology smart agriculture: a bliss to farmers. Int. J. Eng. Sci. Res. Technol, 6(4), 197-202.
- 30. Singh, L., Goyal, M., & Bansal, A. (2022). Progress and performance of national agriculture market (e-NAM) in Punjab. Indian Journal of Economics and Development, 18(3), 707-713.
- 31. Suri, P. K. (2018). Towards an effective agricultural e-trading system in India. *Global value chains, flexibility and sustainability*, 187-203.
- 32. Van der Laan, H. L., Dijkstra, T., & van Tilburg, A. (Eds.). (2018). Agricultural marketing in tropical Africa: Contributions of the Netherlands. Routledge.