

SCIENTOMETRIC ANALYSIS OF RICE PRODUCTS RESEARCH LITERATURE IN INDIA

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Abstract

In this study analyses the Rice Products Research Literature in India during the period 2017-2021 and the analyses included research growth, language of publication and funding agencies. The study was conducted using data from the Web of Science database over the time period of 2017–2021.India is far behind in terms of publication output.

Keywords:Rice Products Research Literature, Scientometric Analysis, India, Funding Agencies.

Introduction

The journey of rice around the world has been slow, but once it took root it stayed and became a major agricultural and economic product for the people. Based on production volume, the third most cereal in world is Rice after than corn and wheat. Traditionally, countries in Asia have the largest share in world rice production. With over 230 million metric tons, China is the world's leading rice producer, while India is the country with the largest area where rice is harvested. 106.1 million Hectares cultivated rice in world and 719.74 million metric tons production of worldwide. In the Indian subcontinent more than a quarter of the cultivated land is given to rice. In 2014 the production of rice is 106.54 metric tons rice from 34.98 million hectares. It is a very essential part of the daily meal in many parts of the country.

Scientometric

Scientometrics is the field of study which concerns itself with measuring and analysing scholarly literature. Scientometrics is a sub-field of informetrics. Major research issues include the measurement of the impact of research papers and academic journals, the understanding of scientific citations, and the use of such measurements in policy and management contexts. In practice there is a significant overlap between scientometrics and other scientific fields such as information systems, information science, science of science policy, sociology of science, and metascience. Critics have argued that over-reliance on scientometrics has created a system of perverse incentives, producing publish or perish environment that leads to low-quality research.

Objectives

- To analyze Yearly Output and Exponential Growth Rate on Rice Products Research Literature in India
- To identify the distribution of type documents
- To identify the distribution on language wise publications
- To assess Affiliations Contribution on rice products research literature in India
- To assess Funding Agencies on rice products research literature in India
- To assess Publication Titles on rice products research literature in India

Table 1: Yearly Output and Exponential GrowthRate on Rice Products Research Literature in India

S.No	Years	Record Count	Percentage	Growth Rate
1.	2017	172	16.76	-
2.	2018	178	17.35	0.03
3.	2019	211	20.57	0.16
4.	2020	251	24.46	0.16
5.	2021	214	20.86	-0.17
Total		1026	100.00	

The above table provides growth rate of rice products research literature in India for the period 2017 to 2021. It was found that the growth rate for the rice products research literature in India are maximum in the years 2019 and 2020 and minimum in the year 2018. It is also found that growth rate was positive for all the years except for the year 2021 where the growth rate found negative.

Table – 2: Distribution of Type Documents

S. No	Document Type	Records	Percentage
1.	Articles	843	82.16
2.	Review articles	145	14.13
3.	Early Access	22	2.14
4.	Proceedings Papers	13	1.27
5.	Editorial Material	1	0.10
6.	Data Paper	1	0.10
7.	Retracted Publication	1	0.10
Total		1026	100.00

The above table revealed the number of documents such as articles, review article, proceedings papers etc., published for the period of five years from 2017 to 2021. Among various items published on rice products research literature, Articles stood first with total number of records 843 (82.16 percent) followed by Review articles 145 (14.13 percent), Early Access 22 (2.14 percent) and each one record (0.10 percent) for Editorial Material, Data Paper and Retracted Publication. It is inferred that the majority of the documents found in the collection was articles.

Table - 3: Distribution on Language wise Publications

S. No	Language	Records	Percentage
1.	English	1025	99.90
2.	German	1	0.10
Total		1026	100.00

The above table indicated distribution of language wise publications in rice products research literature in India for the period 2017 to 2021. In the language wise distribution of records, it is found that English was the predominant language published 10255 (99.90 percent) of records. Followed by German language was published one (0.10 percent) records. Overall, English was the dominant language has contributed above ninety nine percent of records in rice products research literature.

Table 4: Top Ten Affiliations Contribution on Rice Products Research Literature in India

S.No	Affiliations Contribution	Records	Percentage
1.	Indian Council of Agricultural Research ICAR	147	21.94
2.	Indian Institute of Technology System IIT System	97	17.50
3.	Egyptian Knowledge Bank EKB	90	9.77
4.	Indian Institute of Technology IIT Madras	87	8.62
5.	Chinese Academy of Sciences	84	8.35
6.	Rice University	84	8.35
7.	Panjab University	83	8.26
8.	University of California System	83	8.26
9.	University of Delhi	83	8.26
10.	Korea University	82	8.17

The above table revealed that top ten affiliations contribution on rice products research literature in India, Indian Council of Agricultural Research ICAR contribute 147 records, followed by Indian Institute of Technology System IIT System contribute 97 records, Egyptian Knowledge Bank EKB contribute 90 records and Indian Institute of Technology IIT Madras contribute 87 records of rice products research literature in India for the period 2017 to 2021.

Table 5: Top Ten Funding Agencies on rice products research literature in India

S.No	Funding Agencies	Records	Percentage
1.	Department of Science Technology India	156	14.74
2.	Council of Scientific Industrial Research CSIR India	109	10.57
3.	National Natural Science Foundation of China NSFC	84	8.35
4.	European Commission	83	8.26
5.	National Science Foundation NSF	80	7.99
6.	UK Research Innovation UKRI	79	7.90
7.	Conselho Nacional De Desenvolvimento Cientifico E Tecnologico Cnpq	75	7.55
8.	Coordenacao De Aperfeicoamento De Pessoal De Nivel Superior Capes	75	7.55
9.	Federal Ministry of Education Research BMBF	75	7.55
10.	Department of Atomic Energy DAE	74	7.46

The above table revealed that Top Ten Funding Agencies on rice products research literature in India, Department of Science Technology India funded for 156 research projects, followed by Council of Scientific Industrial Research CSIR India funded for 109 research projects, National Natural Science Foundation of China NSFC funded for 84 research projects and European Commission funded for 83 research projects in the field of rice products research literature in India for the period 2017 to 2021.

Table 6: Top Ten Publication Titles on rice products research literature in India

S.No	Publication Titles	Records	Percentage
1.	Journal of High Energy Physics	42	3.73
2.	Journal of Food Processing and Preservation	41	3.64
3.	Journal of Food Science and Technology Mysore	38	3.38
4.	Industrial Crops and Products	22	1.95
5.	Physics Letters B	21	1.87
6.	Bioresource Technology	20	1.78
7.	Environmental Science and Pollution Research	18	1.60
8.	Journal of Cleaner Production	18	1.60
9.	Journal of Food Process Engineering	17	1.5
10.	Construction and Building Materials	16	1.42

The above table revealed that Top Ten Publication Titles on rice products research literature in India, Journal of High Energy Physics published 42 titles for rice products research literature, followed by Journal of Food Processing and Preservation published 41 titles for rice products research literature, Journal of Food Science and Technology Mysore published 38 titles for rice products research literature and Industrial Crops and Products published 22 titles for rice products research literature.

Conclusion

Rice products research literature in India has shown the importance of understanding the Agricultural for the sustainable development. Based from this analysis the research productivity of rice is a regular growth during 2017-2021. Article has the dominating documentation source than others. The average of exponential growth rate is one percent. Indian Council of Agricultural Research ICAR contributes 147 records and Indian Institute of Technology System IIT System contributes 97 records. Journal of High Energy Physics published 42 titles for rice products research literature and Journal of Food Processing and Preservation published 41 titles for rice products research literature.

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