

**Anekant Journal of Humanities
and Social Sciences**

A Half Yearly and Peer Reviewed Open Access Print and Online Journal

<http://www.humanitics.org/>**RESEARCH ARTICLE****Vol. III, Issue II, February 2020****Title- A Bibliometrics Study of Research Trends on Himalaya****Prof. Amar k Kulkarni**

Librarian

Tuljaram Chaturchand College (Autonomous)

Baramati-413102. District- Pune

Email- amarsom@gmail.com

Abstract:

The Mountain Himalaya has great importance in all disciplines of study. This study intensifies the research made on Himalaya through the bibliometric approach. The study is aimed to analyze research articles. Here an attempt is made to know who the prolific author on Himalaya studies, the top priority keywords in use, and the top citations from the country. This study will be a good help to researchers in this area.

Keywords-: Himalaya, Himalaya- Bibliometric Study.

Introduction -:

Himalaya has much importance to various disciplines such as geography, climatology, history, conservation & ecology, defense etc. Himalaya mount ranges separate the Indian Subcontinent from Tibetan plateau; has the highest range of peaks on the planet like Mount Everest. It has the widest range, many rivers like Ganga, Indus etc. originates from Himalaya. Himalaya stretches land controlled by India, Nepal, Bhutan, Pakistan, and China. It covers area ranging around 2500 km in Asia. The religions and their thoughts such as Hinduism, Buddhism, Sufism, and Jainism etc. have their roots associated with the Himalaya. It has third largest glaciers in the world, many lakes, and diversified climate from top altitude to the bottom. Many studies are carried out on Himalaya. So, it is important to highlight the studies made on Himalaya. In the present study, the data from Web of Science is consulted for study. There are few studies on literature of Himalaya; here the attempt is made to cover the period from 1989 to Feb.2022 and the articles published during this period. The total 12586 articles have found involving to the Himalaya study.

Review of Literature-:

Kumar, S., Joshi, M., Rahaman, M. S., Ansari, K. M., & Shah, K. (2021) studied human migration during 1947-2019 in the Himalayan region they used Scopus database for study and find year 1999 has highest

record of articles and country China has more Single and Multiple country collaboration in the articles.

Kandel, P., Chettri, N., Chaudhary, S., Sharma, P., & Uddin, K. (2021) in their research article ecosystem research trends used Scopus data and found that until July 2020 there are 439 articles present. Highest number of articles is from Journal 'Ecosystem Services'. The most used keyword is Ecosystem Services. The network plot is used by authors to show the country collaboration.

Suresh K Rana & others. (2021) in their research paper studied the biodiversity research on Himalaya consulted various literature published in English language through books, research articles and other format, they found that number of articles and books are much less in quantity from northern state of India. Most of the publishing journals are from India and only three are indexed in Science Citation Index. Large number of books and articles are from Nepal. Authors conclude with more suggestions like collaboration need of work, Journal indexing in global view etc.

Rawat, D. S & others. (2021) in their study to know research productivity of Wadia in statute of Himalayan Studies consulted Scopus database to record the observations they studied 1289 documents. Highest number of documents is from year 2017. Srivastava P is most prolific author. Single author is major during start of the years but on later course Joint authorship is recorded on increasing in number.

Nayana J & Padmavati N (2019) in their bibliometric study of Botany Journals represented in directory of open access journals analyzed 75 botany journals analyzed highest number of Journals in the year 2016. English is the most used language of the Journal; Indian contributions are very less in the Journals.

Chaudhary S. & Bisht S. (2016) studied bibliometric analysis of biodiversity monitoring and GIS studies from Western Himalaya States used WoS data, they found that researchers use high resolution imagery provided by Google Earth in their research. 66% of contributions come from journal of Indian Society of remote Sensing and Current Science.

Objective of the study

- A) To examine the research trends on Himalaya from the year 1989-2022.
- B) To know the authorship pattern in the research articles.
- C) To find out the top 10 authors based on their contributions of articles.
- D) To find out total articles from the top 10 countries.
- E) To know the most relevant sources of the articles.
- F) To know the top five keywords used by authors along with their keyword Id.
- G) To find out top 10 funding agencies for research outputs based on articles.

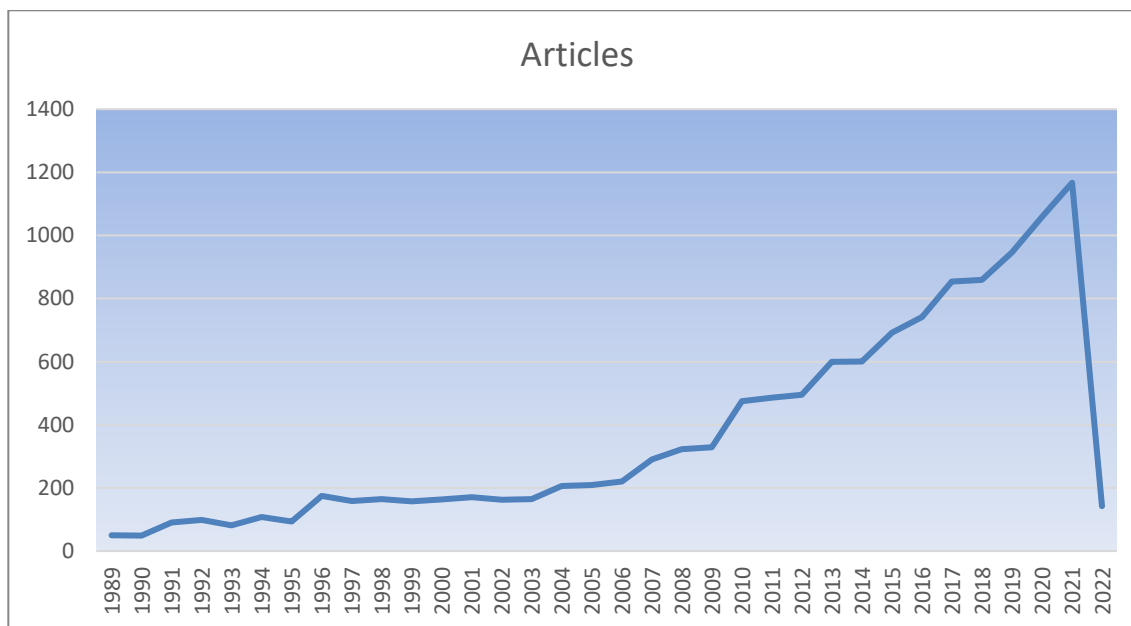
Methodology -:

For doing bibliometric analysis which is widely used in studies of Library and Information Science here the database of Web of Science (WoS) by Carafate for analysis is used. The data is downloaded and presented in MS- Excel. Downloaded data is analyzed through the open access R Software with popular commands in Bibliometrix packages.

Analysis and Discussion-:

- A) Research on Himalaya content topics -:** Totally we have found 12586 documents that contain research on Himalaya. These documents come from different 1532 sources from the period 1989 to

February 2022. The growth of documents is shown in the following graph 1. From the diagram we notice that growth of articles is in increasing format. The data is used up to Feb 2022. The more articles are expected to come out in further coming months.



(Graph 1: Year wise Growth of Articles)

The Annual Percentage Growth Rate is 3.213598 of the documents.

B) Authorship Pattern :- Among the total authors, multi authored documents are found in more number following data provides authors collaboration index. The total we have 20572. Authors among which Single Authored documents are 667 and Multi Authored documents are 19905. Thus, we conclude that the authorship pattern in publishing with multi author is in domination. Further it is found that the degree of collaboration index among authors is 1.71%.

C) Top Authors with their number of Articles :- We found following top 10 authors with their number of articles

Authors Name	Authors Article
KUMAR A	252
KUMAR S	176
KUMAR R	148
KUMAR P	126
SINGH S	118
SHARMA S	107
SINGH AK	87
RAWAL RS	85
KUMAR N	84

(Table 1: Authors Name with their total contribution of articles)

Here we found that Kumara A is the top author with 252 articles in total collection followed by Kumar S (176) and subsequently Kumara R (148) and so on.

D) Total Articles from other countries -: The articles published from the top 10 country with Single Country Publication (SCP) and Multi Country Publication are studied together (MCP). We found that India is having more contributions of articles, but Nepal has more multi country publications

Sr. No	Country	Articles	Frequency	SCP	MCP	MCP Ratio
1	India	6144	0.4901	5390	754	0.123
2	China	1656	0.1321	886	770	0.465
3	USA	1207	0.0963	608	599	0.496
4	United Kingdom	501	0.0400	238	263	0.525
5	Germany	394	0.0314	162	232	0.589
6	France	275	0.0219	102	173	0.629
7	Pakistan	255	0.0203	129	126	0.494
8	Nepal	243	0.0194	78	165	0.679
9	Japan	210	0.0168	109	101	0.481
10	Canada	192	0.0153	84	108	0.562

(Table 2: Country Publication outputs with SCP & MCP)

E) To know most relevant sources-: Following table gives most relevant top 10 sources for articles published from the respective journals. Here Current Science is most top source with maximum number of articles.

Sr. No	Sources	Articles
1	Current Science	550
2	Journal of the Geological Society of India	442
3	Journal of Asian Earth Science	289
4	Earth and planetary science letters	289
5	Himalayan Geology	171
6	Journal of Earth System Science	169
7	Tectonophysics	162
8	Natural Hazards	161
9	Tectonics	161
10	Mountain Research Development	154

(Table 3: Most Relevant Sources with number of articles)

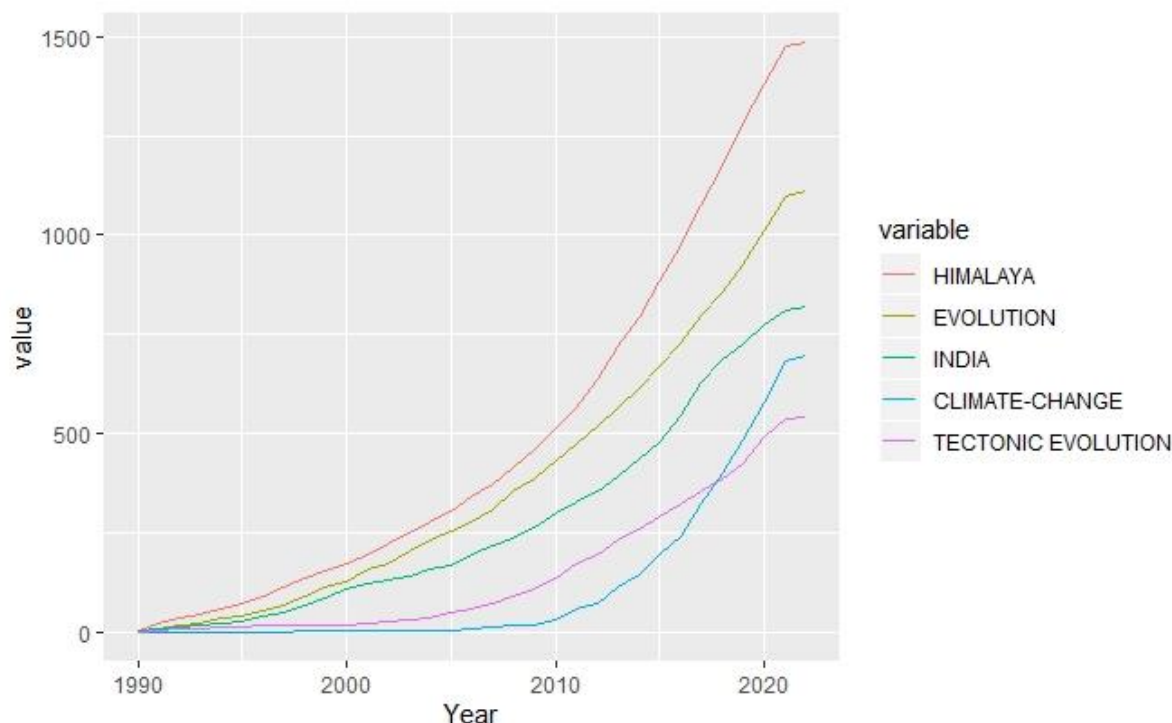
F) To know top keywords according to their appearance -: Following are top five most keywords used by authors and their keyword plus Id. Keyword Himalaya appears in 1765 articles and with ID Himalaya in 1485 articles so on.

Sr. No.	Author Keyword	Articles	Keyword plus ID	Articles
1	HIMALAYA	1765	HIMALAYA	1485
2	CLIMATE CHANGE	404	EVOLUTION	1112
3	INDIA	394	INDIA	819
4	NEPAL	309	CLIMATE CHANGE	697
5	TEXONOMY	241	TECTONIC	543

		EVOLUTION	
--	--	-----------	--

(Table 4: Top five authors keyword & their keyword plus ID)

Same can be shown on following graph



(Graph 2: Usage of keywords with their number during the period of study)

G) To find out top 10 funding agencies promoted for the research - :

Following table list out the top 10 funding agencies for their research outputs from the 12586 research articles.

Sr. No	Funding Agencies	Record Count	% of total records
1	National Natural Science Foundation of China Nsf	1183	9.399
2	Department of Science Technology India	879	6.984
3	National Science Foundation Nsf	510	4.052
4	Chinese Academy of Sciences	390	3.099
5	Council Of Scientific Industrial Research CSIR India	351	2.789
6	University Grants Commission India	351	2.789
7	German Research Foundation Dfg	226	1.789
8	Uk Research Innovation Ukri	219	1.740
9	European Commission	204	1.621
10	Natural Environment Research Council Nerc	202	1.605

(Table 5: Top 10 Funding Agencies for the associated articles record)

Conclusion:

From the above discussion here, conclusion can be drawn as the number of articles on Himalaya research goes on increasing. There is most trend of multiple authorship in research publication. India should give more focus on multi country publications to reach research outputs and knowledge sharing basis also funding for the research should also be focused. Though the top keyword Himalaya appeared most of the times it is followed by the keyword climate change, tectonic studies are also going increased in number associated with Himalaya studies. Further studies can be carried out on the same topic with open access articles also to do citation studies.

References -:

- 1) <https://en.wikipedia.org/wiki/Himalayas> visited on 10 Feb 2022
- 2) Kumar, S., Joshi, M., Rahaman, M. S., Ansari, K. M., & Shah, K. (2021). Research Productivity on Human Migration in the Himalayan Region during 1947-2019: A Bibliometric Study. *Library Philosophy and Practice*, 1-14.
- 3) Kandel, P., Chettri, N., Chaudhary, S., Sharma, P., & Uddin, K. 2021. Ecosystem Services Research Trends in the Water Tower of Asia: A Bibliometric Analysis from the Hindu Kush Himalaya. *Ecological Indicators*, 121, 107152.
- 4) Rawat, D. S., Singh, K., Singh, M., Patel, A. K., & Patel, A. K. (2021). Research Productivity of Wadia Institute of Himalayan Geology. *Library Philosophy and Practice (e-journal)*, 5804, 1-22.
- 5) S. C. 2016. Bibliometric Indicators of Biodiversity Monitoring Using Rs/Giss in Western Himalaya. *ENVIS Bulletin Himalayan Ecology*, 24.P 109-116
- 6) K. S. R., S, R. R., Dangwal, B., D, I. B., & D, T. P. 2021. Two hundred Years of Research on Himalayan Biodiversity: Trends, Gaps, and Policy Implications. *Frontiers in Ecology and Evolution*.
- 7) Aria, M. and Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis, *Journal of Informatics*, 11(4):959-975.