Global Research Trends on Plagiarism: Scientometric Study

Dheerajsinghnegi
Assistant Librarian
Lingayas vidyapeeth, Faridabad
Dheerajnegi3@gmail.com

Poonam Sharma
Librarian
Lingayas Vidyapeeth, Faridabad
Poonam.lib@lingayasvidyapeeth.edu.in

Sushil Kumar Sharma
Professor & Associate Dean
Lingayas's Vidyapeeth, Faridabad

Abstract

This article examine the Global research trends on Plagiarism. We are analysis year wise, Most author Publication, Country wise, citation wise etc. After analysis we are foundtotal publication 1128 total on Plagiarism Global, that year 2019 (157) most published article on Plagiarism . 2021 (47) is a lowest year number of publication having at least 1 Citation, In this during periods 2011-2021 H-index of article we found that year 2013 with 20 highest year of H-index article. Year 2021 (5) is minimum year of h-index in this during periods. The Accountability in research policies and quality assurance is a top journals in this periods 2011-2021.With 51 publication. Anesthesia and analgesia is a lowest contribution Misconduct accounts for the majority of retracted scientific publications by Fang, FC; Steen, RG; and Casadevall, A.

Keywords
Plagiarism; Scientometric study; SCOUPS Database; Global research; Citation analysis

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1. Introduction

Plagiarism is one of the most important aspects of academic and scientific research. Historically, the existence of cheating has been around for thousands of years. Wager went back to C.AD80 and reported that the Roman poet Martial claimed that his work was claimed by others as his own. Fox also reported that fraudulent cases were traced back two thousand years. Fraud cases have been increased with the use of printing technology and other means of communication.

The words plagiarius or impostor are used as captives in English criminal law but the word plagiarius is also used as a thief written in Roman law to people who were the writers of some say that Cunha once wrote an excellent form of questionable interpretations found in a sensitive area. a statement, that 'if you steal from one writer, it is cheating; if you steal from many, it's research '. His statement encourages the use of appropriate quotations while quoting or referring to the activities of others. With the advent of information and communication technology, cheating stories began to spread rapidly around the world. Similarly, various cases of cheating have been found in Indian institutions in the past. Many researchers have made studies of cheating, types of cheating, and how to prevent it. Bibliometric is the only method available to measure the author's research result, institution, nation or area of study. In this study, an attempt was made here to measure the effect of Global research on 'cheating' using bibliometrics.

2. Review of Literature

Many studies have quoted various reasons which encourage plagiarism in academics and research and how it can be dealt. Qiu through a study published in Nature Journal revealed that Universities in China offered various benefits including cash prize etc for publishing in high profile journals which put pressure on the research community which encouraged academic misconduct. He further quoted that in an unpublished survey report of about 6000 researchers of major six universities of China, onethird of the surveyed researchers admitted to plagiarism. He concluded with to impose a strict legal action on doing such academic misconducts. Devlin revealed that countless cases of plagiarism were being detected among Australian Higher Education every year. The universities in Australia started focusing on

implementing plagiarism policy to deter such cases. Heitman and Litewka reported that students coming from Asia, especially from China, India, South Korea, Japan etc were making about half of the International trainees of United States. They tried to put forth that trainees from these countries encourage plagiarism in writings. India, Latin America, Africa and the Middle East regions are lagging behind showing their concern about plagiarism than the others regions. Neelakantan stated that a few years back, the Indian government was worried about India's low research output. focused on the number of publications. This decision resulting in publications by any means that lead to academic misconduct or plagiarism in many cases. She further shared that editor of Current Science had confirmed about 80 plagiarism cases among publications submitted to the journal during 2006-2008. Similarly, Aggarwal , et al. stated that measuring academic achievement is difficult in the scenario when promotions are assessed on basis of different job discriptions of individuals. The Number of research publications is an important component of career advancement and promotion in India which encouraging plagiarism in absence of proper policy10-11. Garcia-Romero & Estrada-Lorenzo12 carried out an interesting study on Déjà vu database to analyse plagiarism and self-plagiarism. The Déjà vu database record the entries of papers published earlier (Original Papers) and later published papers (plagiarised). The later published papers can be reflected as the duplicate of earlier papers. They found that the authors who write papers after the earlier ones were not skillful as they were unable to publish in reputed journals. Kakol, et al. highlighted the issue of self-plagiarism by conducting a bibliometric analysis. They searched a string of 'auto OR self AND plagiarism' in title, abstracts and keywords fields. They found 313 records of information sources written in the English language during the period of 1946-2015. The most productive country was United States of America (84) followed by United Kingdom (30) and India (17). They also revealed that merely 19 records were found during 1946 – 2002 and only 27 records during 2003-2006 whereas an exponential growth was seen in the third block which is 2007-2014 in which 145 recordswere found. After 2012 a slight decrease was observed in selfplagiarism related records.

Velmurugan& Radhakrishnan14 conducted a bibliometric study on articles indexed by Web of Science for the period of 2010-2014. They executed a query on 'Plagiarism' term and retrieved 795 records. They found that 182 (23 %) papers were published in the year 2013. Hong Kong University was ranked as the most active university by publishing 11 (1.4 %) of the total publications on plagiarism. With respect to countries, United States of America had published 200 (25.3 %) of the total publications whereas India achieved 9th position by publishing 16 (2.07 %) share of publications during the period of study. Current Science is the most preferred journal for publishing plagiarism related articles for Indian authors. Babu15, et al. conducted a study of medical undergraduate students in private medical schools of Pondicherry, India. They found that almost all surveyed students were involved in at least one act of academic dishonesty. Proxy attendance, technical help and copying during exams are some of the common act of academic dishonesty. They concluded with the suggestion of establishing centers for academic integrity in India. There were also other studies of medical institutions of India which highlighted academic misconduct a criticalproblem which needs to be deterred soon16-20. Johnson , et al. raised various questions on the use of bibliometrics techniquesespecially when online journals are the key access points forproducer and user of information. They believed that the dataavailable online can easily be tampered or aggravated withvarious means. However, it is also evident through variousstudies that bibliometrics is the only technique available which helps in measuring research output with respect to publications produced and citation received.

3. Objective of Study :-

The study has been carried out with the following Purpose-

1. To Find out Year wise growth the Global researchon Plagiarism
2. To study the Citations analysis on plagiarism
3. To find out Most productive authors Global research on Plagiarism
4. To study the Most productive journals Global research on Plagiarism
5. To find out Top ten Country wise Publication on Plagiarism

6. To find out the Top ten Funding institutions

4. Methodology :-All the data search year wise, journal wise, Top Country and top citation and collected to SCOUP Business database during the periods 2011-2021, and download the sparate sheet MS excel 2007. arrangeto data in table and Graphs.

5. Data Analysis

Table 5.1 Year wise growth and citation

Year	Publications
2011	05
2012	112
2013	109
2014	85
2015	95
2016	86
2017	109
2018	106
2019	157
2020	145
2021	119
Grant Total	1128

Above the table is show that year 2019 (157) most published article on Plagiarism . Year 2011 (05) is lowest article publications onPlagiarism. This study have been analysis 11 year Publication on Plagiarism Global basis 2011-2021 Total publication during the year 1128.

Table 5.2 Citations analysis

Year	Publications	Citations	Average citations per paper	No. of publications having at least 1 citation	H-index
2011	95	1230	12.95	69	-
2012	112	1681	15.01	85	17
2013	109	1215	11.15	85	20
2014	85	591	6.95	70	13
2015	95	1104	11.62	72	18
2016	86	875	10.17	75	16
2017	109	999	9.17	92	16
2018	106	1011	9.54	86	17
2019	157	1029	6.55	129	16
2020	145	658	4.54	116	12
2021	119	143	1.2	47	5

Table no 2 has been show Citations analysis and we found that year 2015 highest citations analysis with 1104 and 2021 is low year for the citation analysis with 143 citations. The average of citations a per paper found the year 2012(15.01) highest average citations and Year 2021 (1.20) is found a lowest average citations per paper in this during periods 2011-2021. The number of publications having at least 1 citation we are analysis that year 2019 with 129 maximum no. of publication having at least 1 citation, Year 2021 (47) is a lowest year No. of publication having at least 1 Citation, In this during periods 2011-2021 H-index of article we found that year 2013 with 20 highest year of H-index article. Year 2021 (5) is minimum year of h-index.

Table 5.3 Most productive Authors

Authors	Publications	Citations	H-index	Country	Rank
Wiwanitkit, K.	37	57	4	India	1
Iqbal, J.	22	457	14	Pakistan	2
Joob, B.	17	16	2		3
Purohit, H J	15	97	6	India	4
Rosso, P	15	362	11	Russia	5
Jan, T.	14	294	10	Pakistan	6
Anonymous	13	10	1		7
Dafale, NA	12	82	6	India	8
Ahmad, I	9	239	7	Pakistan	9
Heideman, KF	9	1	1	USA	10

The most productive authors we found that Wiwanitkit K. with 37 publication, 57 citations, 4 H-index country India found a top rank in this table. Second rank Iqbal. J. with 22 publication 457 citations, 14 H- Index country Pakistan got a 2nd rank in this table, the third rank found Joob, B. with 17 publication, 16 citations, 2 H-index. The fourth rank found Purohit, H J with 15 publication 97 Citations , 6 h-index country belong to India.

Table 5.4 Most productive journals

Journals	Publications
Accountability in Research Policies and Quality Assurance	51
Science and Engineering Ethics	49
Scientometrics	25
Plos One	17

Current science	16
Computer Education	13
Journal of Korean Medical Science	13
American Journal of Roentgenology	12
IEEE Access	12
Anesthesia and Analgesia	10

In this table show the Accountability in research policices and quality assurance top journals in this table. With 51 publication. The science and engineering ethic second top journal with 49 publication on Plagissiam. Anesthesia and analgesia is a lowest countribution in this table with 10 Publication.

Table 5.5 Highly cited papers

Authors	**Titles**	**Cited**
Fang, FC; Steen, RG; and Casadevall, A.	Misconduct accounts for the majority of retracted scientific publications	522
Steen, R G	Retractions in the scientific literature: is the incidence of research fraud increasing?	210
Battisti, WP; Wagar, E …. [et.al.]	Good Publication Practice for Communicating Company-Sponsored Medical Research: GPP3	199
Steen, RG; Casadevall, A; and Fang, FC	Why Has the Number of Scientific Retractions Increased?	199
Coats, AJS and Shewan, LG	Statement on authorship and publishing ethics in the international journal of cardiology	170
Alzaharani, SM; Salim, N and Abraham, A.	Understanding Plagiarism Linguistic Patterns, Textual Features, and Detection Methods	93
Cosma, G and Joy, M.	An Approach to Source-CodePlagiarism Detection and Investigation Using Latent Semantic Analysis	86
Fan, M; Liu, J…. [et.al.]	Android Malware Familial Classification and Representative Sample Selection via Frequent Subgraph Analysis	79
Potthast, M; Barron-Cedeno, A… [et.al.]	Cross-languagePlagiarism detection	77
Kornfeld, DS	Perspective: Research Misconduct: The Search for a Remedy	74

Above table is show that Misconduct accounts for the majority of retracted scientific publications by Fang, FC; Steen, RG; and Casadevall, A. is a top cited in the Topic on Plagissam with 522 Citation. The Second rank we found that Retractions in the scientific literature: is the incidence of research fraud increasing? By Steen, R G with 210 citation and Good Publication Practice for Communicating Company-Sponsored Medical Research: GPP3 byBattisti, WP; Wagar, E …. [et.al.] with 199 citation.Perspective: Research Misconduct: The Search for a Remedy by Kornfeld DS with 74 citation lowest in this table.

Table 5.6 top Ten Institutions publisher

Insitutions	**No. of public-cation**	**Rank**
CSIR, Delhi	71	1
CSIR-NEERI	56	2
Academic of Scientific Innovative Research	35	3
INT Islamic University	22	4
Hainan Medical University	19	5
University of California	19	6
Quaid I Azam University	18	7
University Politecnica De Valencia	15	8
Sanitat 1 Med Acad CTR	14	9
Pennsylvania commonwealth system of Higher Education	13	10

Above table show that CSIR India, with 71 publication top Institution in this table. The second rank is found CSIR-NEER with 56, third rank we found that Academic of Scientific Innovative Research with 35 publication , Fourth rank INT Islamic University with 22 publication. Hainan Medical university with 19 found a 5th rank in this table. University of Caliomia with 16 publication found a 6thrank .Quia I Azam University with 18th publication got a 7th rank in this table. University Politecnica De Valencia was found 15 publication

with 8th rank. Sanitat Med Acad CTR is found a 9th rank with 14 publication. Last Pennsylvania commonwealth system of higher education found the with 13 publication 10th rank in this table.

Table 5.7 Top ten Country wise

Sl. NO	Country	No. of Publication	Rank
1.	USA	225	1
2.	India	120	2
3.	China	115	3
4.	England	50	4
5.	Pakistan	40	5
6.	Australia	35	6
7.	Spain	32	7
8.	Germany	30	8
9.	Thailand	25	9
10.	Canada	24	10

This table show the Top Ten Distribution country wise Rank .we found that USA is a top country with no, of publication with 225, rank 1st found in this study . the India is a got a second rank in this table with 120 publication on the Plagrisam. The china was found the third rank in this table with 115 publication. The England is found the fourth rank in this table with 50 no of publication . Canada is a low in this table with 24 publication. It was found a 10 rank in this table.

Table 5.8 Top ten Funding institutions

Name of Institutions	No. of publications
National Science Foundation of China	43
National Institute of Health, USA	31
Department of health Human Services, USA	31
Department of science Technology, India	24
National Science foundations	21
CSIR, India	18
UGC, India	14
Fundamental research funds for the central universities	10
CSIR-NEERI, India	9
European Commision	9

Table 5.8 top ten funding institutions National science foundation of china is found a top position with 43 no .of publication in this table. CSIR-NEERI India and European Commission with 9 Number .of publicationis lowest rank in this table.

6. Conclusion

This study find out the year 2019 (157) most published article on Plagiarism . Year 2011 (05) is lowest article publications on Plagiarism that year 2015 highest citations analysis with 1104 and 2021 is low year for the citation analysis with 143 citations. The average of citations a per paper found the year 2012(15.01) highest average citations and Year 2021 (1.20) is found a lowest average citations per paper in this during periods 2011-2021. The number of publications having at least 1 citation we are analysis that year 2019 with 129 maximum no. of publication having at least 1 citation, Year 2021 (47) is a lowest year No. of publication having at least 1 Citation, In this during periods 2011-2021 H-index of article we found that year 2013 with 20 highest year of H-index article. Year 2021 (5) is minimum year of h-index .the Accountability in research policices and quality assurance top journals in this table. With 51 publication. The science and engineering ethic second top journal with 49 publication on Plagissiam. Anesthesia and analgesia is a lowest countribution Misconduct accounts for the majority of retracted scientific publications by Fang, FC; Steen, RG; and Casadevall, A. is a top cited in the Topic on Plagissam with 522 Citation CSIR India, with 71 publication top Institution National science foundation of china is found a top position with 43 number of Publication.

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