

**Bibliometric Study of Content Analysis of the Journal ‘Gender, Technology and Development’ (1997-2015)’**

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Abstract

This study aims to present a bibliometric analysis of the Journal “Gender, Technology and Development”, The aim is to offer a summary of research activity in the field of women’s/gender studies and characterize and its most important aspects. The paper analyzes a bibliometric study of 297 scholarly articles were published during the period 1997 to 2015. The paper covers the bibliometric analyses of year-wise distribution of articles, category-wise classification of contents, subject coverage of articles, authorship patterns, ranking of leading contributors, geographical distribution of contributors, number of references in articles, institution-wise affiliation, and also reports special issues of journal. The findings are important for assessing the current state of a journal and for guiding future publication of research.

Keywords : Content analysis, Gender studies, Technology development literature, Development, Women gender studies

1 Introduction

Literature is the body of thought expressed in published writings. The primary role of literature is to record and transmit ideas or discoveries that bring in advancement of knowledge. Bibliometric analysis is the quantitative description of literature and helps in the measurement of the patterns of all forms of recorded information and their producers. It has extensive applications in the field of library and information science particularly with regard to studying the trends in a subject. It helps in formulating need based development policy and provides objectives data to inform managers to take timely decisions.

2 Literature studies

The first recorded study of Bibliometric topic was in 1917 by Coles & Eales with the “Statistical analysis of literature of history of comparative anatomy”, which served as a model for applying the counting technique in the evaluation of international activities. Pritchard (1969) first



introduced the term “Bibliometrics” as “the application of mathematical and statistical methods to books and other media of communications”. It involves the analysis of a set of publications characterized by bibliographic variables such as the authors, the editors, place of publications, publishers, subjects, year and the citations etc. Hence, we are witnessing large number of bibliometric studies for over last four decades. According to Sengupta (1980) the Bibliometric study has defined as organization, classification and quantitative evaluation of publication pattern of macro-communication along with their authorships by mathematical and statistical calculations.

The current study is a bibliometric analysis of the Journal Gender, Technology and Development, an International, multi-disciplinary, refereed journal on women/gender studies. Women’s Studies research was started in India as new academic discipline early in the 1970s when the UN declared 1975-85 an International Women’s Decade. The Government of India appointed a Committee on the Status of Women in India in 1971. Its report entitled “Towards Equality” (1974) caused the demand subsequently for women’s studies. A number of government and non-government organizations took the research into a new area for teaching, action research, advocacy and development. It took the form of books, statistical resources, periodicals, research reports and in grey literature unpublished or circulated through established channels. The periodicals are the indicators of literature growth in any field of knowledge. They emerged as the main channel for transmitting current knowledge. Periodicals are considered as one of the primary sources of information in any given discipline, and more so in newly emerging and expanding area like women’s studies. The first ever Indian journal Manushi: A Journal about Women and Society was published in 1979. Samya Shakti (1983) from Centre for Women’s Development Studies, a premier research centre on women’s issues in India. Indian Journal of Gender Studies (1994) from CWDS, Journal of Women’s Studies (1996) from Calcutta University, Samyukta from Women’s Initiatives, Kerala are the key journals in the field of women’s studies from India. There are many core journals like, Feminist Review, Feminist Economics, Gender and Development, Gender, Technology and Development, Feminist Studies, Feminist Sexuality etc from abroad.

3 Source Journal

“Gender Technology and Development” is an international multi-disciplinary, refereed journal published from Sage, serving as a forum for exploring the linkages among changing gender relations, technological change and developing societies. The objective of the journal is to facilitate the recognition, promotion and coordination of opinions concerning the extended and shifting boundaries of meaning in gender, feminism, equality, technology and science for non-Western societies and cultures. Multi-disciplinary in nature, the journal links the activities of women and men to institutions or governments, on the basis of technology, social relations and management. Gender, Technology and Development is available electronically on SAGE Journals Online at <http://gtd.sagepub.com>. This journal is a member of the Committee on Publication Ethics (COPE). The journal is also indexed and Abstracted by the International Bibliography of the Social Sciences, SafetyLit, SCOPUS, DeepDyve, Portico, Dutch-KB, ProQuest-RSP, EBSCO, OCLC, Ohio, ICI, ProQuest-Illustrata and J-Gate.



4 Need of the Study

The academic journals from India on women are very few, and the core Journals from overseas on women's studies are quite expensive. Due to the escalating cost of the periodicals and lack of adequate library budgets the selection of any particular journal for a library should be done more carefully. Therefore, the library authorities are forced to reduce the number of journal subscriptions. Bibliometric analysis has many applications in the Library and Information science filed in identifying the research trends in the subject, core journals, etc. and thereby framing new subscription policy for tomorrow. This study will be helpful for librarians to plan a better collection development.

5 Scope

Gender, Technology and Development is an important scholarly journal on women's issues. It is published by Sage, India in association with Asian Institute of Technology, Thailand. The frequency of the Journal is three every year, distributed between March, July and November from 2010 onwards. From 1997 to 2009 the journal was published in the month of January, May, and August. This journal publishes the original work of the contributors on women's/gender studies, and also publishes book reviews, people's initiatives, NGO profiles, news bulletins relating to issues of gender and technology, research reports and conference reports etc. So far, 19 volumes of the journal have been published. Total No. of issues are 57. Over 297 scholarly articles have been published during the period 1997-2015. A total of 84 Book reviews, 21 peoples Initiatives, over 22 Research Reports and Research Notes and 82 Conference Reports have been published during the study period of 1997-2015.

6 Objectives

The purpose of this article is to conduct a comprehensive bibliometric assessment of the journal "Gender, Technology and Development" with respect to following parameters:

- Year-wise distribution .of articles
- Category-wise classification of contents
- Subject coverage of articles
- Authorship pattern
- Ranking of leading contributors
- Geographical distribution of contributors
- Number of references in articles
- Institution-wise affiliation
- Special issues of journal

7 Methodology

Methodology applied in the present study is bibliometric analysis which is used to study in detail the bibliographic features of the articles and analysis of references appended at the end of each article published in the Gender, Technology and Development from 1997 to 2015. This article



have all the details such as year-wise distribution of articles, author pattern, geographical distribution, subject coverage, number of references etc. of all articles published in the journal. These data were presented in tabular form organized, and analysed using simple arithmetic methods

8 Data Analysis and Interpretation

The source journal ‘‘Gender, Technology and Development’’ has been used to extract all the details such as author(s) pattern, year of publication, type of references, volume and issue number of the journal etc. covering all articles published from 1997-2015 which were recorded for the following analysis.

8.1 Year –wise Distribution of Articles

During the period 1997 to 2015 total no. of 279 articles were published in Gender, Technology and Development. Table 1 shows the number of articles published differ from year to year. The maximum number of articles have been published in vol. 6 of the year 2002 and vol.12 in the year 2008, i.e. 18(7%) followed by 17(6%), (vol.15, 2011); 15(5%), (vol.9,2005) and so on.

Table 1

Year –wise Distribution of Articles

Year	Vol.	Issues	Articles	%age
1997	1	3	14	5
1998	2	3	15	5
1999	3	3	15	5
2000	4	3	13	5
2001	5	3	15	5
2002	6	3	18	7
2003	7	3	15	5
2004	8	3	16	7
2005	9	3	15	5
2006	10	3	12	4
2007	11	3	12	4
2008	12	3	18	7
2009	13	3	14	5
2010	14	3	14	5
2011	15	3	17	6
2012	16	3	14	5
2013	17	3	15	5
2014	18	3	14	5
2015	19	3	13	5



Total 19 57 279 100

Table 1.1 presents the issue-wise distribution of articles. However, it is observed that the number of contributions are not equal for each issue.

Table 1.1 Distribution of Articles (Issues -wise)

Month	Volumes (1997-2009)											
	1	2	3	4	5	6	7	8	9	10	11	12
	13											
January-April	5	6	6	4	5	6	5	7	6	6	4	7
	5											
May-August	4	5	5	4	5	6	5	5	5	3	4	2
	4											
September-December	5	4	4	5	5	6	5	4	4	3	4	9
	5											
Total	14	15	15	13	15	18	15	16	15	12	12	18
	14											
Month	Volumes (2010-2015)											
	14	15	16	17	18	19						
January-March	4	6	5	4	5	4						
April-July	5	4	5	5	5	4						
August-November	5	7	4	6	4	5						
Total	14	17	14	15	14	13						

8.2 Category-wise Classification of Contents

Table 2 focuses on the category wise classification of the contents published during the period from 1997 to 2015. The study reveals that the maximum number of news and events i.e. 259 (56%) have been published, whereas 84(14%) books reviews were published. There were a small number of Review Articles 14(2%) published in the content of the source journal.

Table 2 Category-wise Classification of Contents

Contents Total %age



Book Reviews	84	14
Conference. Reports	82	13
News & Events	359	56
People's Initiatives	21	3
Recent Books on Gender & Technology	58	9
Research Notes	22	3
Review Articles	14	2
Total	640	100

Table 2.2

Year Wise Classification of Contents								
Year	Book Review	Conf. Report	News& Events	People's Initiatives	Recent Gender Technology	Books & Res. Notes	Review Articles	
1997	9	6	32	3	7	0	2	
1998	9	6	30	3	13	0	0	
1999	5	2	35	3	18	1	2	
2000	7	5	38	3	20	0	3	
2001	5	5	37	4	20	0	3	
2002	10	6	45	4	22	0	2	
2003	7	7	24	0	17	0	0	
2004	4	6	11	1	24	2	0	
2005	5	9	25	0	8	1	0	
2006	6	7	24	0	12	2	0	
2007	6	6	20	0	12	2	0	
2008	6	5	18	0	9	3	0	
2009	5	6	20	0	0	2	0	
2010	3	5	10	0	6	4	0	
2011	0	0	0	0	0	3	1	
2012	4	0	0	0	0	1	0	
2013	1	0	0	0	0	0	0	
2014	1	1	0	0	0	1	0	
2015	1	0	0	0	0	0	0	
Total	84	82	359	21	58	22	13	

8.3 Subject-wise coverage of Articles

Table 3 shows that a majority of articles appeared under Information Technology 44 (22%). These are followed by Environment 27 (14%), Women's Development 21 (10%), Violence Against Women 20 (9%), Agriculture 17 (9%), Migration 16 (8%), Women's Status 15(7%) ,



There are small number of articles in the subject like Globalization 9 (5%), Education 7 (4%), Health 5 (3%), Rural Women 4 (2%)

Table3
Subject coverage of Articles

Subject	Total Number	%age
Agriculture	17	9
Education	7	4
Environment	27	14
Globalisation	9	5
Information Technology	44	22
Migration	16	8
Politics	10	5
Rural Women	4	2
Science and Technology	4	2
Violence Against Women	20	9
Women's Development	21	10
Women's Status	15	7
Total	199	100

8.4 Authorship Pattern

Table 4 indicates the details about the authorship pattern. For determining the authorship pattern, authors are categorized into four groups such as single author, two authors, three authors and more than three authors. The table shows that maximum numbers of articles contributed by single author 197(61%) followed by two authors 87(27%), three authors 31(10%) and more than three authors 5 (2%) respectively. It is noted that majority of the articles are contributed by single authors.

Table-4
Authorship Pattern

Authors	Total Number	%age
Single Authors	197	61
Two Authors	87	27
Three Authors	31	10
More than Three Authors	05	2
Total	320	100



Table-4.1

Authorship Pattern (Vol. -wise)

Vols.	Single Authors	%age	Two Authors	%age	Three Authors	%age	More than three Authors	%age
1	10	5	7	8	----	----	----	----
2	14	7	2	2	1	3	----	----
3	12	6	3	3	1	3	----	---
4	14	7	2	2	---	----	----	----
5	15	8	3	3	---	----	----	---
6	12	6	8	9	2	6	----	----
7	12	6	4	5	---	----	----	----
8	15	8	3	3	1	3	---	----
9	9	5	7	8	---	----	---	----
10	9	5	4	5	1	3	----	----
11	9	5	5	6	---	---	----	----
12	15	8	5	6	1	3	---	----
13	7	3	4	5	4	13	1	20
14	6	3	5	6	4	13	----	----
15	12	6	4	5	5	17	----	----
16	7	3	5	6	3	10	----	----
17	7	3	7	8	1	3	1	20
18	9	5	4	5	3	10	1	20
19	3	1	5	6	4	13	2	40
Total	197	100	87	100	31	100	5	100

8.5 Ranking of Leading Contributors

Table 5 shows the ranking of author/ contributors of articles published in Gender, Technology and Development during 1997 to 2015. In the rank list the contributors who have contributed more than 7 articles or more are taken into account to avoid a long list. There are a total of 381 contributors for 279 articles Cecilia N G and Thanh-Dam Truong has contributed 7 articles, followed by Bernadette P Resurreccion contributed 6 articles. Dawn H Currie, Swasti Mitter and Dev Nathan Contributed 4 articles. Others have contributed less than 4 articles during the period of study. In the analysis it has been observed that most of the ranked contributors are from Asian Institute of Technology, Thailand.

Table 5
Ranking of Leading Contributors

No. of Contributors	Ranking	No. of Articles
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2	1	7
1	2	6
3	3	4
9	4	3
22	5	2
344	6	1

For more details kindly see Annexure 1 for Ranking of Leading Contributors.

8.6 Geographical Distribution of Contributions

Table 6 gives an alphabetical list of 11 countries from where the authors contributed the articles during 1997 to 2015. During the analysis it has been observed that the highest number of contributors are from South East Asia 59(22%), followed by India 53(21%), South Asian Countries 40(15%), Africa 33(12%) and UK 3(1%), Europe 4(1%) etc.

Table-6

Geographical Distribution of Articles

Country	Number	%age
Africa	33	12
Asia	12	4
China	16	6
Europe	4	1
India	53	21
Middle Eastern Countries	10	3
Other Countries	31	12
South Asian Countries	40	15
South East Asian Countries	59	22
UK	3	1
USA	9	3
	270	100

8.7 Number of References in Articles

The references provided by the authors at the end of their articles are the basis of citation analysis. Generally authors cite-different kinds of documents in their articles according to their needs. The references comprises of articles form books, journals, conferences, web resources, theses and dissertations etc. Table 7 and 7.1 shows that there are 9212 references in 19 volumes of the source journal. It is observed that the number of references per year is varying from year to year. This analysis revealed that majority of authors preferred books as the main source of information, which occupied the top position with the highest number of citations 3518 (39%)



second highest position is occupied by journals articles 2641 (28%) and followed by research reports 1560 (16%), web resources 780 (8.5%), conferences 390 (4.3%), Theses 116 (1.3%), Newspaper articles 89 (0.9%). It also observed that the highest number of references used in 2009 (675), and the minimum number of references used in 2001 (253).

Table 7

Year Wise Distribution of References

Year	No. of References	%age
1997	468	5
1998	404	5
1999	320	4
2000	392	4
2001	253	3
2002	387	4
2003	594	7
2004	330	3
2005	442	5
2006	534	6
2007	412	4
2008	558	6
2009	675	7
2010	588	6
2011	536	6
2012	551	6
2013	597	6
2014	669	7
2015	502	6
Total	9212	100

Table 7.1

Category-wise References

Year	Books	Journal Articles	Conferences	Newspaper Articles	Web Resources	Research Reports	Theses	Unpublished Documents
1997	244	83	27	1	0	110	3	1
1998	177	80	34	5	0	106	2	5



1999	169	72	25	4	0	44	6	8
2000	246	89	11	14	0	27	5	5
2001	131	59	13	3	1	38	8	14
2002	148	100	20	6	53	56	4	7
2003	333	153	11	4	18	72	3	1
2004	131	47	20	2	49	78	3	0
2005	154	129	27	4	33	86	9	10
2006	209	189	12	6	23	87	8	2
2007	184	71	16	8	21	109	3	0
2008	198	172	24	7	34	116	7	3
2009	249	178	25	5	34	175	9	2
2010	219	109	38	4	89	117	12	5
2011	180	115	21	5	100	105	10	3
2012	149	227	7	4	105	49	10	1
2013	198	247	21	5	52	65	9	0
2014	164	321	16	2	116	45	5	5
2015	153	200	22	0	52	75	0	0
Total	3518	2641	390	89	780	1560	116	72

8.8 Institution-wise Affiliation of Contributors

Table 8 depicts the institution wise contributors. These sectors have been grouped into six distinct categories for the convenience of the study. The highest contributions are from universities/colleges/departments with 167(44%). This is followed by research institutions 118(31%), independent researchers 55 (14%), students 24 (7%), government departments 15(4%) and Media 1(0%).

Table 8

Institution-wise Affiliation of Contributors

		%age
Government Departments	15	4
Independent Researchers	55	14
Media	1	0
Research Institutions	118	31
Students	24	7
Universities/Colleges/Deptts	167	44
Total	380	100

8.9 Special Issues



Table 9 shows the details of special/thematic issues of the Gender, Technology and Development journal brought out during 1997 to 2015 under the guest editorship of the eminent personalities. Out of 52 issues published during 1997-2015 only 11 special issues were brought out. There were no special issues were brought out during 1997, 1998, 2000, 2007, 2012, and 2013.

Table 9

Special Issues of the Gender, Technology and Development

Year	Volume & Issue	Theme/Title	Guest Editor(s)
1999	3(1)	New Technologies and Women's Employment in Asia	Swasti Mitter and Nirmala Banerjee
2001	5(1)	Gender Relations in Forest Societies	
2002	6(1)	Women and Digital Divide	
2003	7(2)	Global and Local: Asian Connections	
2004	8(1)	Gender in the Information Society	Dawn H Currie and Sunera Thobani
2005	9(1)	Gender and Globalisation: Local/Global Interfaces	Swasti Mitter and Cecilia Ng
2006	10(1)	Gender and Environmental Governance	Merete Lie and Ragnhild Lund
2008	12(1)	Human Trafficking	B P Resurreccion and Rebecca Elmhirs
2008	12(3)	Trans-Local Livelihoods and Connections	Merete Lie and Ragnhild Lund
2010	14(1)	Research as Praxis-Social and Gender Analysis in NRM	Thanh-Dam Truong and Des Gasper
2010	14(2)	Emerging Sexualities in Asia	Dawn H Currie and Ronnie Vernooy
2010	14(3)	Women in National Politics in Asia	Saskia E Wieringa Andrea Fleschenberg, Claudia Derichs, Cecilia Ng
2011	15(3)	Gender and Space: Themes from Asia	Anindita Das
2014	18(1)	Bodies, Sexualities and Gender	Wendy Harcourt and Thanh-Dam Truo

9 Findings

The following specific findings can be drawn from the present study

- The journal has published 279 articles during the period of study. Distribution of articles from 1997 to 2015 in the journal Gender, technology and Development is consistent as the difference between maximum and minimum articles. Maximum number of articles have been published in 2002 and 2008, i.e. 18(7%).
- The study reveals that in the content of journal the maximum number of News&Events were published and the minimum number of category of Review Articles have been published.
- The subject analysis shows that the articles are concentrated mostly on gender and information technology.



- Majority of the contributions in the journal are single author and they are eminent faculties in their respective universities/colleges/departments and research institutions.
 - It is registered that in the ranking list of contributors, Cicilia N G and Thanh-Dam Truong contributed maximum articles.
 - Geographical distribution of contribution shows that maximum contribution is from South East Asian Countries, i.e. 59(22%).
 - The study reveals that the maximum number of references accounted in the period 1997-2015. It is observed that the books are the most cited documents , i.e. 3518(39%).
 - The study reveals that the highest contributions are from universities/colleges/departments with 167(44%).
-
- It is observed that out of 57 issues, only 11 special issues were brought out from eminent editors and guest editors.

10 Conclusion

Gender, Technology and Development is a reputed journal in the field of Women/Gender Studies. Analysis of contribution of 19 volumes of the journal shows that it covers contributions related to nearly all aspects of the source journal. The increasing trend in the number of contributions in the journal from year to year shows that the journal is a respected primary publication by researchers in the area. The journal is popular among researchers in the area of Women's/Gender Studies.

References

Pritchard A (1969), Statistical Bibliography or Bibliometrics, Journal of Documentation, 25 (4) (1969) 348-349.

Sengupta I N, Ghosh B N & Sengupta (1980) K N, Role of Bibliometry in Journal Selection and Management, IASLIC Bulletin, 25 (2) (1980)87-92.

<http://feministlawarchives.pldindia.org/category/towards-equality/towards-equality-towards-equality/>

Annexure 1

Ranking of leading Contributors



S.No.	Rank	Contributors	Number of Articles
1	1	Cicilia N G	7
2	1	Truong,Thanh-Dam	7
3	2	Resurreccion,BernadetteP	6
4	3	Currie, dawn H	4
5	3	Nathan,Dev	4
6	3	Mitter, Swasti	4
7	4	Kelkar, Govind	3
8	4	Kusakabe, Kyoko	3
9	4	Lie, Merete	3
10	4	Lund, Ragnhied	3
11	4	Mishra Panda, Smita	3
12	4	Paris, Thelma R	3
13	4	Shreshtha, Girija	3
14	4	Veena N	3
15	4	Wieringa, Saskia E	3
16	5	Apu, Niaz Ahmed	2
17	5	Carol Yong Ooi Lin	2
18	5	Derichs, Claudia	2
19	5	Doane, Donna l	2
20	5	Everts, Saskia	2
21	5	Fleschenberg, Andrea	2
22	5	Fuquan, Yang	2
23	5	Ghadially, Rehana	2
24	5	Haque, Md. Mozammel	2
25	5	Hui, Tan Beng	2
26	5	Kakad, Krishna	2
27	5	Krishnaraj, Maithreyi	2
28	5	Rahman, Sanzidur	2
29	5	Satyawadhana, Cholthira	2
30	5	Singh, Nandita	2
31	5	Singh, Shiv Pratap	2
32	5	Subba, Suman	2
33	5	Takamatsu, Kana	2
34	5	Truong Thi Ngoc Chi	2
35	5	Vernooy, Ronnie	2
36	5	Yuhua, Xi	2
37	5	Yunxian, Wang	2