

Citation Analysis of Doctoral Theses of Library and Information Science Submitted to the Alagappa University with Special References to Shodhganga Website

M. Thamaraiselvi*, M. Manthiramoorthi and A. Manikandan

Librarian and Information Assistant, Anna Centenary Library, Chennai - 600085,
Tamil Nadu, India; mthamaraiselvi.acl@gmail.com, mmanthira@rediffmail.com

Abstract

The research paper deals with the citation analysis of doctoral theses of library and information science submitted to the Alagappa University with the special reference to shodhganga website. This study is based on 674 total citations in the 6 doctoral theses. The purpose of this study was to identify the most cited sources of information, authorship pattern, rank list of core journals and country-wise publication in library and information science. The study revealed that 79.91% of total citations are cited by the journals followed by websites with 6.39% citations. The Electronic Library journal has ranked first with 74 citations with 13.83% of total citations and 5.98% of citations of Annals of Library and Information Studies was ranked second. Authorship pattern show that most of the contributors are single author with 51.17% of total citations followed by two authors with 28.43% of citations and three authors with 12.71% of citations and more than three authors with 7.69% of citations

Keywords: Alagappa University, Citation Analysis, Doctoral Theses, Library and Information Science, Shodhganga Website

1. Introduction

Citation analysis is one of the most widely used methods of bibliometrics. Citation analysis is used to examine and measures the frequency, pattern, and cited bibliographical sources. It is used to link other researcher scholarly works. Citation analysis is one of the popular methods to find out the core journal in the subject. It also reveals the authorship pattern, country-wise publications, year-wise cited documents, institutions productivity and other parameters of scientific activities. Theses and dissertations are well known to be the rich and unique source of information. Thus it helps to identify the quality of bibliographical references used in the doctoral theses.

INFLIBNET Centre created a website to assess all Indian Universities Theses and Dissertation in electronic

set-up is named as Shodhganga. It is a digital repository. Dspace developed by MIT (Massachusetts Institute of Technology) in partnership between Hewlett- Packard (HP) an open source digital repository software is using in Shodhganga website. The origin of the word Shodh derived from Sanskrit and stands for research and discovery. The holiest, largest and longest river in Indian subcontinent is Ganga. It is the symbol of Indian heritage, culture and civilization. So it is added to the name after the word Shodh.

According to the UGC Notification (Minimum Standards and Procedure for Award of M.Phil./Ph.D Degree, Regulation, 2009) dated 1st June 2009 mandates submission of electronic version of theses and dissertations by the researchers in universities. As per the Regulation, the responsibility of hosting, maintaining and

*Author for correspondence

making the digital repository of Indian Electronic Theses and Dissertation accessible to all institutions and universities, is assigned to the INFLIBNET Centre.

2. Review of Literature

“Ramanjaneyulu, H² revealed that the Citation analysis is a major area of bibliometrics research, which use various methods to establish relationship between authors and their work. Citation analysis is a technique of bibliometrics. It is an important research tool understanding the subject, which we analyze the structure and direction of the subject. It measures the utility of documents and relationship between their author and their documents. Citation analysis in any research activity has become one of the popular methods to study subject relationships, authorship pattern, impact, publication trends, and to identify core journal in a particular subject field or for a particular scientific community. In this paper an attempt is made to present pattern of citations in the theses presented to Sri Krishnadevaraya University in the subjects namely Commerce, Economics, Management and Political Science during 1982-2009.”

“Gohair³ studied that 30 PhD theses of chemical sciences submitted to Tezpur University, Assam for the award of doctoral degree during the period 2008-2012. The main purpose of this study was to identify the type and form of literature cited, authorship pattern of the citations, and compiled a rank list of core journals in chemical sciences. The study revealed that 78.83% of total citations are cited by the journals, followed by books with 15.57 % citations. Journals were the most preferred sources of information cited by the researchers in the field of chemical sciences. The Journal of American Chemical Society has ranked first with 617 citations, followed by Journal of Molecular Catalysis a: Chemical has ranked second with 569 citations, and Macromolecules has ranked third with 543 citations. Out of the total number of 8658 journal citation 39.89% are by more than three authors, followed by two authors with 22.28%. Hence it is concluded that most of the citations were contributed by more than three authors in authorship pattern that mean the collaborative research is prevailing in chemical sciences.”

“Wardikar.⁵ explained the Application of Bradford’s Law of Scattering to the Literature of Library and Information Science: A Study of Doctoral Theses Citation Submitted to the Universities of Maharashtra. The study

deals with 798 periodical containing 5467 references collected from 138 theses during the period 1982-2010. Annals of Library Science and Documentation has ranked first with 207 citations followed by College and Research Libraries which ranked second with 184 citations, and Herald of Library Science has ranked third with 160 citations. Applicability of Bradford’s Law in various methods was tested. The relationship of each zone in the present study is 15:55:728. This does not fit into the Bradford’s distribution. Therefore Leimkuhler model was employed for the verification of Bradford’s Law of Scattering, it was found that the law find valid for the data set. The percentage of error is found to be the most negligible (0.043%).”

“Shi-Jian Gao, [et al]¹ study deals with the citation analysis of 56 PhD theses submitted at Wuhan University in China during 2005. The authors analyzed, reviewed and compared the characteristics of the literature cited in the four disciplines. The disciplines are Library and Information Science, Biology, Photogrammetry and Remote Sensing, and Stomatology. The results revealed that out of 10,222 total citations Biology and Stomatology were cited literature mainly in English language publication whereas in the field of Library and Information Science, the cited literature came primarily from Chinese sources. In Photogrammetry and Remote Sensing, citations were almost evenly split between English and Chinese sources”.

3. Objectives of the Study

- To identify the most cited sources of information in the bibliographical references.
- To identify average number citations per theses.
- To identify the authorship pattern.
- To prepare a rank list of core journals of library and information science in order of their frequency of citation.
- To identify the country wise distribution of core journals.

4. Methodology

Overall 7 doctoral theses chapters have been uploaded by the Department of Library and Information science of Alagappa University in Shodhganga website. Out of 7 theses one thesis was repeated twice in the website. Therefore 6 doctoral theses were considered for research

study. The bibliographical references are collected at the end of overall thesis chapter. The collected data was classified, tabulated, presented, analyzed and interpreted using percentage and cumulative percentage with the help of MS-excel. The study was analysed and interpreted with several parameters like year-wise distribution of theses, average number of citations per theses, authorship pattern, citations of bibliographical references, country-wise publications of core journal, ranking of core journals in library and information science.

5. Data Analysis and Interpretation

Table 1. Distribution of theses according to year-wise

Sl. No	Year	No of Theses	Percentage
1	2011	1	16.67
2	2012	2	33.33
3	2013	2	33.33
4	2015	1	16.67
Total		6	100

Table 1 shows the distribution of theses according to year-wise. Out of 6 doctoral theses 33.33% (2) of theses submitted in the year of 2012 and 2013 and 16.67% (1) of theses submitted in the year of 2011 and 2015. It is observed that maximum number of PhD theses submitted in the year of 2012 and 2013.

Table 2. Distribution of average number of citations per theses

Sl. No	Year	Total number of Theses	Total no of Citations	Average number of citations per theses
1	2011	1	105	105.00 (15.60%)
2	2012	2	233	116.50 (34.56%)
3	2013	2	249	124.50 (36.94%)
4	2015	1	87	87.00 (12.90%)
Total		6	674	112.33 (100%)

Table 2 “shows the distribution of average number of citations per theses. Out of 6 theses 36.94% of aver-

age number of citations per theses was cited by the library and information science research scholars in the year 2013, followed by 34.56% of average number of citations per theses was cited in the year 2012, 15.60% of average number of citations per theses was cited in the year 2011 whereas 12.90% of average number of citations per theses was cited in the year 2015”.

“Hence it is stated that maximum 36.94% of average number of citations per theses was cited by the library and information science research scholars in the year 2013 and Minimum 12.90% of average number of citations per theses was cited in the year 2015”.

Table 3. Authorship pattern of cited documents

Sl. No	Authors	Total No. of citations	Percentage of citations
1	Single	306	51.17
2	Two	170	28.43
3	Three	76	12.71
4	More than three	46	7.69
Total		598	100

Table 3 reveals the authorship pattern of cited documents. Out of 598 citations 306 (51.17%) were by single author followed by 170 (28.43%) were two authors, 76(12.71%) were three authors and 46 (7.69%) were more than three authors. Hence it concludes that majority of authorship pattern of cited documents are single author.

Table 4 shows the distribution of cited documents according to bibliographical references in the doctoral theses by the research scholars. Out of 674 total citations 79.96% (537) journals are the most preferred source of information cited by the research scholars. Followed by 6.38% (43) websites were the second most preferred source of information cited by the research scholars, 4.60% (31) other format were the third preferred source of information cited by the research scholars. 5.05% (34) conference proceeding, seminar and research papers were the fourth preferred source of information followed by 3.26% (22) books were the fifth preferred source of information cited by the research scholars Whereas 0.59% (4) Report, course handout, lecture notes and 0.45% (3) Dissertation were the least preferred source of information cited by the research scholars.

Its states that majority of the research scholars are mostly preferred to cite journals followed by websites.

Table 5 shows that the 152 Journals with 535 citations arranged in the order of decreasing number of their rank.

Table 4. Distribution of cited documents according to bibliographical references

Sl. No	Bibliographical References	Total No. of Citations	Cumulative Citations	Percentage of Citations	Cumulative Percentage
1	Books	22	22	3.26	3.26
2	Journals / Magaines	537	559	79.67	82.93
3	Conference Proceedings / Seminar/Research Paper	34	593	5.05	87.98
4	Dissertation	3	596	0.45	88.43
5	Report/ Course Handout and Lecture Notes	4	600	0.59	89.02
6	Websites	43	643	6.38	95.40
7	Others	31	674	4.60	100
Total		674		100	

Table 5. Rank list of core journals in library and information science

Sl. No	Name of the Journal	No. of Citations	Cumulative Citations	Percentage	Cumulative Percentage	Rank
1	The Electronic Library	74	74	13.83	13.83	1
2	Annals of Library and Information Studies	32	106	5.98	19.81	2
3	Library Review	23	129	4.30	24.11	3
4	Interlending and Document Supply	19	148	3.55	27.66	4
5	Scientometrics	17	165	3.18	30.84	5
6	Journal of Documentation	15	180	2.80	33.64	6
7	DESIDOC Journal of Library and Information Technology	14	194	2.62	36.26	7
8	Library Management	13	207	2.43	38.69	8
9	College and Research Libraries	11	218	2.06	40.75	9
10	Journal of American Society for Information Science and Technology	10	228	1.87	42.62	10
11	Library Philosophy and Practice	10	238	1.87	44.48	10
12	Library Hi Tech	9	247	1.68	46.17	11
13	Collection Building	8	255	1.50	47.66	12
14	International Information and Library Review	8	263	1.50	49.16	12
15	Information Research	8	271	1.50	50.65	12
16	New Library World	8	279	1.50	52.15	12
17	SRELS Journal of Information Management	8	287	1.50	53.64	12
18	Aslib Proceedings	8	295	1.50	55.14	12
19	Online Information Review	8	303	1.50	56.63	12
20	Dlib Magazine	7	310	1.31	57.94	13
21	Journal of Library and Information Science	6	316	1.12	59.06	14

22	Information Studies	6	322	1.12	60.19	14
23	Libray Hi tech News	6	328	1.12	61.31	14
24	Electronic Library and Information Systems	6	334	1.12	62.43	14
25	Asian Libraries	6	340	1.12	63.55	14
26	Library Herald	5	345	0.93	64.48	15
27	KELPRO Bulletin	5	350	0.93	65.42	15
28	The Bottom Line Managing Library Finances	5	355	0.93	66.35	15
29	6 Journals with 4 Citations each	24	379	4.49	70.84	16
30	8 Journals with 3 Citations each	24	403	4.49	75.33	17
31	22 Journals with 2 Citations each	44	447	8.22	83.55	18
32	88 Journals with 1 Citation each	88	535	16.45	100	19
		535		100		

Out of 152 journals the electronic library journal was cited 74 (13.83%) times and ranked as first. Followed by annals of library and information studies was cited 32 (5.98%) times and ranked as second and library review was cited 23 (4.30%) times and ranked as third. Whereas 6 journals with 4 citations each, 8 journals with 3 citations each 22 journals with 2 citations each and 88 journals with 1 citation each was least cited journals.

Table 6. Country-wise publications of core journals

Sl. No	Country	No of Journals	Percentage	Rank
1	UK	43	28.29	1
2	India	40	26.32	2
3	USA	35	23.03	3
4	Netherlands	14	9.21	4
5	Canada	5	3.29	5
6	Iran	3	1.97	6
7	Spain	2	1.31	7
8	Switzerland	2	1.31	7
9	Brazil	1	0.66	8
10	Germany	1	0.66	8
11	Ghana	1	0.66	8
12	Hungary	1	0.66	8
13	Malaysia	1	0.66	8
14	Newzealand	1	0.66	8
15	South Africa	1	0.66	8
16	Sweden	1	0.66	1
Total		152	100	

Table 6 shows the country-wise publications of core journals out of 152 journals 28.29% (43) journals are published from United Kingdom with first rank followed by 26.32% (40) journals are published from India with second rank and 23.03% (35) journals are published from United States of America with third rank. These three countries occupied 77.64% of total publications whereas other countries like Netherlands, Canada, Iran, Spain etc are shares the rest of the publications.

6. Findings and Conclusion

Citation analysis is the method to identify the valuable bibliographical references cited in the research work. It is the evidence of PhD research scholars to cited relevant books, journal, magazine, conference proceedings, websites in their subject. The study revealed that maximum number of doctoral theses submitted in the department of library and information science in Alagappa University according to the special reference of shodhganga website was 2012 and 2013. Maximum 36.94% of average number of citations per theses was cited by the library and information science research scholars in the year 2013 and Minimum 12.90% of citations per theses were found in the year 2015. It is observed that majority of the cited documents are single authorship pattern. It states that majority of the research scholars are mostly preferred to cited journals followed by websites. Out of 152 journals the electronic library journal was cited 74 (13.83%) times and ranked as first. 28.29% (43) journals are published from United Kingdom with first rank followed by 26.32%

(40) journals are published from India with second rank and 23.03%(35) journals are published from United States of America with third rank. These three countries occupied 77.64% of total publications whereas other countries like Netherlands, Canada, Iran, Spain etc shares the rest of the publications. This kind of studies is useful to the upcoming research scholars to recognized how valuable information sources are cited from the doctoral theses.

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