

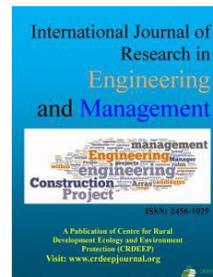
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Full Length Research Paper

Citation analysis of Management Thesis: A study of Doctoral Thesis submitted to Kumaun University, Nainital

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ABSTRACT

Library is a social institution which brings a Reader into relationship with the Writer, the Publisher and of-course the Librarian. These relationships can also be viewed in terms of knowledge producers. Library is the heart of an Educational Intuition. Father of Indian library movement, Dr. S. R Ranganthan describes the constituting factors of a library as "Books, Readers and Staff as the Basic Trinity of the library". The word 'Library' has its origin in the phrase Liber which means 'Book' in Latin and correspondingly in the Greek and other Roman languages the term is bibliotheca which means collection of books or group of books or other print materials. 'Library' may be defined as -"a collection or group of books or collection of books or other print or non print materials, which is organized and maintained for use." Here 'use' represents reading, consultation, study, research, learning and such several other utilizations. The library is a dynamic instrument of education. It is an agency for the transfer of knowledge and builds the bridge between Knowledge and the information users.

Introduction

References and Citations are crucial in every kind of Research Writing and Reporting. These direct the readers to additional information pertaining to the concept or idea which has been presented and discussed. References also help the readers to evaluate and ascertain the authenticity and accuracy of the analysis, interpretation and conclusion. Citation is a reference given of a document in research writing such as Thesis, Research-articles, Project-reports, etc. Citation is special reference works that are used to identify as many published works on a given subject as possible, and serve as compilations for other authors or researchers.

Reference means a footnote in an article which gives bibliographic information about an earlier article (Krauze & Hillinger, 1971). Citation is reported to serve as label for intellectual property in all types of scholarly literature. Citation acknowledges intellectual indebtedness. Martyn (1975) states, that, the primary function of these Citations is to provide a connection between two documents, one which cites and other which is cited. The Citation represents a relationship between cited document and Citations.

Citation or References are accompanied by a list of the entire Citations in alphabetical order, in the concluding section, normally referred to as 'references' 'reference list', 'works cited'

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or 'end-text citations' and other similar terms. The word reference is derived from Middle English referren, from Middle French r f rer, from Latin referre, which mean 'to carry back' formed from a prefix re- and ferre, meaning 'to bear'. Gross and Gross (1927) article was perhaps the first on citation analysis. Garfield (1975) defined Citation Analysis "as a major method of bibliometrics that considers the Citations (both to and from documents)".

The study of Citation Analysis is one of the best technique for analyze the different attributes of Resources. Today most of the libraries are facing problems in Journal subscription cost, shrinking library budget, lack of space for library holdings, etc, which have resulted in number of user studies, being studied. Citation Analysis has two broad areas of applications. One of them is suitable for librarians where Citations are used to find out various features of literature use like type of documents, languages, age, country of origin, subject distribution, highly cited authors, Journals, citation rate, authorship pattern etc. and the other kind of study is useful to derive the research productivity in a field of study.

Literature Review

Swati Jain & Basavaraj (2015) analyze 328 articles published in 'Journal of Clinical & Diagnostic Research' during the year 2007-2014. The present study reveals that highest number (141)

of articles is published in 2013-14. The authorship pattern of citations revealed that most of the papers have been contributed by three authors (65.2%), followed by two authors (14%) and single authors (3.7%).

Somashekara & Mallinath Kurnbar (2015) in their study analyzed 6909 citations appended to 52 doctoral Thesis in Zoology, submitted to three universities in Karnataka, India, during 2006-2010. The study revealed that journals appeared to be the most preferred sources of information contributing the highest number citations (78.15%), followed by books (10.86%), Thesis (1.38%), reports (1.28%) and E-resources (0.75%). The country-wise scatter of citations showed that USA occupied first position with 36.17% of the total citations, followed by UK (16.75%) and India (15.92%).

Padmaja & Surendra Babu (2014) analyzed citations appended to 123 Ph.D. Thesis in Economics accepted by Sri Venkateswara University, Tirupathi, from 1970 to 2010. The study revealed that books appeared to be the most preferred sources of information contributing the highest number of citations (49.57%) and remaining citations were from journals (38.85%), reports (2.40%) and monographs (1.85%). The country-wise distribution of citations showed that USA occupied first position accounting for 36.73 percent of the total citations, followed by India (28.08%) and UK (16.43%). Single author contributions contributed 65.14% citations, two author contribution 20.48% and three authored contributions 12.44%.

Hema Haldua, Chanda Arya & Arundhati Kaushik (2014) in their research paper "Citation Analysis of doctoral dissertations in Molecular Biology Submitted to G. B. Pant University", studied 35 doctoral dissertations in the area of Molecular Biology awarded during the period of 1966-2004. The study revealed that journal literature was the most referred sources of information (88.02%), followed by books (7.75%), seminar conference proceedings (1.95%) and Thesis (0.96%). It was observed that 55% cited journals are from USA, while 45% cited journals are from UK, India, Netherlands, Germany, Canada and Australia. Umesh Kulkarni & others (2014) carried out a citation analysis of Ph.D. Thesis in science discipline submitted to Pune University and Bharati Vidyapeeth Deemed University during 1997-2007. More than 3300 citations from this Thesis were analyzed. The study revealed that journal literature was the most referred sources of information (80.82%), followed by books (10.18%), seminar conference (1.17%) and web resources (0.37%). English is the most common language for reference work but substantial percentage of some other languages found during this citation analysis. Russian, German, French, Japanese are some of these languages.

Gurjeet Kaur Ratan (2014) conducted a citation analysis of 848 citations from 40 articles published in Pakistan Journal of Library and Intimation Science for the period 2006-2012. The authorship pattern of citations revealed that 59.55% papers were single-authored, 16.98% were double and the remaining 23.47% were more than two authors. The study revealed that journal literature was the most referred sources of information (51.42%), followed by books (17.57%), web resources (9.32%) and seminar conference (3.77%). The most cited journals in the dissertations

were Information Outlook (10.10%), followed by International Journal of Information & Library Review (3.67%) and Pakistan Library Journal (3.21%).

Mercy (2014) analyzed the citations in Social Science dissertations of Nigerian University, during 2009-2013. It was revealed that the authors cited more from textbooks than journal and internet /electronic resources. Citations from book were 69.4%, followed by journals 16% and Internet/ E-Resources 8% among others. 34.6% of the total citations were very recent, 21% citations were recent, while 13.4% citations were not very recent and 31% of the total citations were not recent.

Dillip (2014) was analyzed 4844 citations appended to 112 papers published in journal of Quality Assurance in Education during 2008-2012. The study revealed that journals appeared to be the most preferred sources of information contributing the highest number of citations (58.26%) and remaining citations were from books (25.87%), Web citations (8.07%), proceedings (2.37%) and reports (1.16%). The authorship pattern of citations shows that 41.07% of citations are contributed by single authors, followed by two authored citations (31.25%) and three authored citations (21.43%).

Brendan (2014) analyzed 15,283 citations appended to 884 papers published in two linguistics journals, Applied Linguistics and Journal of Linguistics, during 2001-2010. The study revealed that books appeared to be the most preferred sources of information contributing the highest number of citations (53.30%) and remaining citations were from journals (35.90%), Thesis/dissertations (4.20%), conference papers (3.8%) and e-resources (1.6%). The authorship pattern of citations shows that 63.2% of citations are contributed by single authors, followed by two authored citations (26.4%) and three authored citations (8.4%).

Padmavathi (2014) analyzed 6688 citations appended to 42 Ph.D. Thesis in Education accepted by the Bangalore University, Bangalore during 2003 to 2012. The study revealed that journals appeared to be the most preferred sources of information contributing the highest number of citations (39.43%) and remaining citations were from books (37.93%), and Thesis (9.20%). The geographical distributions show that the researchers in Education have heavily cited the literature published from USA (63.94%), India (24.70%) and UK (11.36%). The Journal of Applied Psychology was ranked first with 137 (5.20%) citations, followed by the Indian Educational Review with 97 (3.68%) and the Journal of Educational Research with 75 (2.58%) citations.

Gohain & Saikia (2014) analyzed 10983 citations appended to 30 Ph.D. Thesis in Chemical Sciences accepted by the Tezpur University, Assam, from 2008 to 2012. The study revealed that journals were the most preferred sources of information used by the researchers in the field of chemical sciences accounting for 78.83% of total citations, followed by books with 15.57% citations. The Journal of American Chemical Society has ranked the first with 617 citations accounting for 7.13% of the total journal citations, followed by Journal of Molecular Catalysis with 569 (6.57%) and Macromolecules with 543 (6.27%) citations. Authorship pattern for journal citations shows that most

of the citations were contributed by more three authors that mean the collaborative research is prevailing in chemical sciences. The findings of the study revealed that out of the total number of 8658 journal citation, 39.89% are by more than three authors, followed by two authors with 22.28%.

Walton & Morris (2013) analyzed 454 citations appended to 47 botanical monographs published in 2009. Present study reveals that monograph books appeared to be the most preferred source of information contributing the highest number of citations (49.30%), followed by journal articles 48.60%, Thesis 90.9% and conference proceedings 0.2%. The publisher wise distribution of citations shows that the 'Cambridge University Press' secured the first rank for being cited heavily the publications published by the accounting for 3.60% of total citations, followed by Timber Press (3.10%) and Botanical Survey of India (1.80%).

Rabindra, Ashok Kurnar and Amulya (2013) studied 10886 citations appended to 385 articles published in the Journal of Intellectual Property Right for the year 2002-2011. The authorship pattern of citations revealed that the number of single authored paper is much higher at 68.83%, followed by two authored papers 83 (21.56%), three authored papers 22 (5.71%) and, four authored papers 15 (3.9%) respectively. It was observed that 78.50% of the cited journals came from India, followed by USA (6.27%), UK (3.76%), China (1.61%) and Switzerland (1.25%).

Nilaranjada & Pushpanjali (2013) analyzed 3368 citations appended to 180 articles in the Journal of Knowledge Management Practice during the period of 2008-2012. The results showed that, in the year 2011, highest 42(23.3%) articles were published out of 180 articles in 5 years. Single author contribution has predominant with 42.7%. Average numbers of citations per article are 19, In geographical distribution of articles, USA has contributed highest 34 articles with 18.8% and highest 69.4% articles are published with page range of 11-20.

Das (2013) analyzed 6582 citations appended to 206 articles in the Journal of Library Trend during the period of 2007-2012. The present study reveals that highest number (51) of articles is published in 2007-08. Majority of authors preferred to publish their research results in individual authorship mode 122 (59.22%). The majority of articles 63 (30.58%) have the length of 16- 20 pages. The highest number of contributions with citations between 11-20 is 48 (23.30%).

Dillip & Panda (2012) analyzed 1541 citations appended to 332 articles in the journal of Intellectual Property Rights during the period of 2002-2010. 471 authors contributed articles during the nine years. Due to the absolute domination of solo contributions, the visibility of collaborative contribution was found remarkably less. About one third of the total publications received citations, more than half of the cited articles carried just 1 citation, one fourth got 2 citations, and the rest received citations between 3 to 9 times. The average number of citations against all published articles was found to be 0.66 per article. Moreover, it was discovered that self-citations among authors constituted 22.01% of the total cited scholarly papers. The top five cited journals were Journal of Intellectual Property Rights, European Intellectual Property Review, Research Policy, World Patent

Information, Trademark Reporter and Current Science. The country wise scatter of citations showed that India occupied first position with 79.96% of the total citations, followed by USA 6.61% and UK 3.62%.

Hemanta Kumar Das (2012) analyzed 2999 citations appended to 210 articles in the Journal of Plant Taxonomy during the period of 2004-2011. The present study reveals that that majority of citations are from the journals i.e. 1577 (52.59%) followed by books 1292 (43.08%), thesiddiscrtations 54 (1.80%), seminar/workshop/conference proceedings 42(1.40%), reports (Government / Project/Committee) 19(0.64%), Online sources 6 (0.20%), newsletters/Magazine 4(0.13%) and minimum citations from others (includes pamphlet, information leaflet etc.) i.e. 4 (0.13%).

Vaishali (2011) analyzed 1151 citations appended to 84 articles in the Electronic Journal of Academic and Special Librarianship during the period 2005- 2009. The study observed that journals accounted highest number of citations with 390 (33.88%), followed by books with 290 (25.19%), web resources with 200 (17.37%), seminar/conferences/ workshop/symposium had 74 (6.42%) citations and news papers, has 32 (2.78%) citations. The country wise scatter of citations shows that India occupied first position with 33.01% of the total citations, followed by New York (13.01%), London (9.12%), USA (8.60%) and UK (8.25%). Ming (2011) analyzed 16320 citations appended to 556 articles in the journal of Information Science for the period of 1998-2008. Out of the total citations, 50.10% of the citations are from journal articles, followed by books (19.30%), e-resources (16%) and conference proceedings (9.20%). The top five most cited journals, are Journal of the American Society for Information Science and Technology (9.2%), Information Processing and Management (5.4%), Journal of Documentation (4.70%), Journal of Information Science and Sciento-metrics.

Garg and Kumar (2010) investigated the pattern of citations of the articles published in 46 Indian Science Journals indexed by SCIE in the year 2006 and cited during 2006 to 2009. The proportion of cited papers and the rate of citation varied for domestic, foreign, and collaborative papers, as well as among disciplines and publishers. Study reveals that collaborative papers has highest rate of citation per paper. The Indian Journal of Medical Research published by Indian Council of Medical Research, New Delhi has the highest citation impact. Highest number of papers was cited in the discipline of medicine.

Thanuskodi (2010) analyzes articles published in Library Philosophy and Practice during the year 2005-2009. The journal published 249 articles during the period of study. The maximum number of contributors is single authors with 31.32%. The study reveals that journals as the source of information which occupied the top position with the highest number of citations 1,026 (53.03%) of the total citations. The second highest position is occupied by books with 432 (22.32%) citations. It is followed by seminar /conference proceedings with 243 (12.55%).

Objective

1. To study the sources of literature used by the researchers

2. To ascertain the Authorship pattern of Citations
3. To analyze the subject wise Distribution of Citations
4. To identify the Language wise Distribution of Citations.
5. To study the Geographical Distribution of Citations.
6. To analyze publisher wise Distribution of Books and Journals Citations.

- H₀5: Citation of these isn't geographically distributed
- H₀6: There is no distribution of Books and Journals Citations

Hypothesis:

- H₀1: There is no use of primary sources of literature review by the researcher
- H₀2: There is no use of multi-authorship in the Thesis submitted by the researcher
- H₀3: There is no subject-wise distribution of citation.
- H₀4: There is no use of multiple languages used in the Thesis

Research Methodology

Present research is analytical in nature whose main objective is to analyses the citations of doctoral these in management streams. The researcher analyses 100 Thesis, selected on the basis of random sampling, submitted to Kumaun University during 2010-2015. Similarly all the selected 100 thesis were scanned by the researcher especially reference parts of thesis. The scanning of selected thesis provided total citation which was 40362.

Results

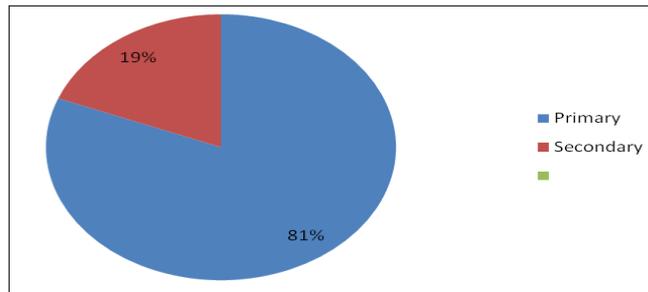


Fig 1Data of sources of literature

Figure 1 present the data of sources of literature used by the management & commerce students in their research work. According to figure 1 majority of the research work was done

with the help of primary data. Only a few 19% thesis were found based on secondary sources of data.

Table 1: Citation on the Basis of Authorship

Year	Single Author		Multiple Author		Total Citations
	One	Two	Three	More than three	
2010-11	2937	1641	1644	1810	8032
2011-12	2836	1658	1684	1934	8112
2012-13	2754	1374	1644	1882	7654
2013-14	2884	1720	1644	1820	8068
2014-15	2912	1890	1754	1940	8496

Table 1 provides data related to citation on the basis of authorship. Table 1 also presents a data during the period of 2010-15. According to table 1, most citation mentioned in most

of the thesis was based on single author followed by more than three authors, three authors & two authors respectively.

Table 2: Subject wise citations in Management

Subjects	Total Citations	%
Human Resource Management	12998	32.20
Marketing Management	225	0.56
Financial Management	215	0.53
Production & Operation Management	18	0.04
Information Technology	120	0.30
International Business	25	0.06
Commerce	16326	40.45
Accounting	85	0.21
Others	10350	25.64

Table 2 presents subject wise citation in commerce & management subjects. According to table 2, there were three subjects, Human Resource Management, Commerce & Others, had maximum numbers of citations. On the other hand

management subjects such as Marketing Management, Financial Management, Production & Operation Management, and Information Technology & International Business had very less citations.

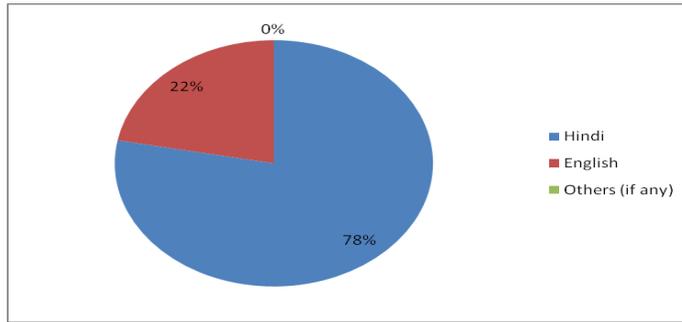


Fig 2: Language wise distributions of citation

Figure 2 present language wise distribution of citations. The study revealed that English was one of the prominent languages to cite references followed by the Hindi languages.

Table 3: Country wise-distribution of citations in Management

Sources	Total Citations	%
India	34000	84.24
UK	2771	6.87
USA	961	2.38
Russia	390	0.97
South Africa	235	0.58
Germany	172	0.43
Sri Lanka	222	0.55
Switzerland	100	0.25
Singapore	498	1.23
No Details	1013	2.51

Table 3 presents country wise distributions of citations in commerce & management. According to table 3 most of citation

was done from the literature of Indian sources followed by sources available in UK, USA & other countries

Table 4: Bibliographic from-wise distribution of Citation

Sources	Total Citations	%
Books	35013	86.75
Journals	2771	6.87
Government Publications	961	2.38
Dictionaries/Encyclopedia	390	0.97
Web Sources	235	0.58
Seminar/Conference Proceeding	172	0.43
Thesis/Dissertations	222	0.55
Newspaper	100	0.25
Others	498	1.23
Total	40362	100

Table 4 present Bibliographic from-wise distribution of Citation. According to table 4 most of the thesis were referenced by book (86.75%) followed by Journals (6.87%), Government Publications (2.38%) or etc.

Conclusions

- 1.The study revealed that thesis in the field of commerce management submitted to Kumaun University based on primary sources. The study also revealed that only 19% Thesis were based on secondary sources of data.
- 2.Present research also reveals that most of the citation mentioned in most of the thesis were single authored in all year followed was based on single author followed by more than three authors, three authors & two authors respectively.

- 3.Commerce & Human Resource Management were found one the important subjects of commerce & management which had maximum numbers of citations. On the other hand management subjects such as Marketing Management, Financial Management, Production & Operation Management, and Information Technology & International Business had very less citations.
- 4.English language was found one of the most usable languages to cite reference in the thesis.
- 5.Indian literature was one of the most important sources of citations followed by the sources referenced from the literature of UK, USA & other countries.
- 6.Table 4 present Bibliographic from-wise distribution of Citation. According to table 4 most of the thesis were referenced by book (86.75%) followed by Journals (6.87%), Government Publications (2.38%) or etc.

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