

## CITATION ANALYSIS OF DOCTORAL THESES IN POLITICAL SCIENCE SUBMITTED TO CHAUDHARY CHARAN SINGH UNIVERSITY

*Sunil Tyagi*

*Krishna Kumar*

The present study investigates the use pattern of literature as revealed through the citation analysis of doctoral theses submitted to the Department of Political Science, Chaudhary Charan Singh University Meerut, Uttar Pradesh, India from 2010-2015, with the aim of improving the existing collection development in the library. The study employed descriptive research design. Theses submitted for the award of Doctoral degree from 2010 to 2015 to the Department of Political Science, Chaudhary Charan Singh University Meerut, Uttar Pradesh, India were examined. For the present study, 22 Ph.D. theses of political science were chosen as a sample during the year 2010-2014, there are in all 2192 citations appended in 22 theses. Extracted data were analysed using statistics. The study shows that the highest numbers of citations (61.1%) were recorded from books, followed by journal articles, newspapers, conference/proceedings, reports etc. Analysis on distribution of country-wise scattering of citations reveals that Indian literature received (51.6%) citations and ranked first, followed by USA and UK with 325 (14.8%) and 172 (7.8%) citations. The analysis of authorship pattern in political science theses reveals that 79.6% of citations were the papers written by single authors, which implies that political sciences are less collaborative as compared to sciences and technology. The analysis of citations indicates that most cited authors in the theses are Indian authored 64.8% and citations to foreign authors are about 35.2%. The outcome of the study is an original research work with citation analysis of doctoral theses in political science. It highlights the information materials available and used by researchers of the Department of Political Science for their research work and those which need to be added for a healthy collection.

Sunil Tyagi  
Indian Pharmacopoeia  
Commission,  
Ministry of Health &  
Family Welfare,  
Government of India,  
Sector-23, Rajnagar,  
Ghaziabad, U.P.  
suniltyagi1979@gmail.com  
Krishna Kumar  
Department of Library &  
Information Science,  
Chaudhary Charan Singh  
University,  
Meerut, U.P.  
*Corresponding Author*  
*Sunil Tyagi*

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### INTRODUCTION

Citation analysis studies the patterns of citations in documents, an objective method for gathering data about information needs. Rather than focusing on users' perceived needs, as in a questionnaire-type needs assessment, citation analysis gives the researcher a picture of actual needs as reflected by the items referenced in formal publications by the library's users. Citation analysis can provide insights about research interests, resource needs, research behaviour, interdisciplinary, scholarly communication, and collection management in academic libraries. Used cautiously and in conjunction with other evaluation sources, it can contribute to a profile of the resources that researchers most commonly use. University and college libraries are constantly under pressure to

manage funds prudently and in a manner consistent with teaching and research needs.

The Department of Political Science of Chaudhary Charan Singh University, Meerut, Uttar Pradesh, India came into existence in 1977 and the Post Graduate programmes at M.A. and M. Phil. levels started in the years 1978 and 1979 respectively. Till now, 96 students have obtained their Ph.D. degree. Students from abroad primarily from Southeast Asian countries and Africa have also obtained their M.A. and Ph.D. degrees. The department's emphasis continues to be on empirical research at grassroots level, both in rural and urban environment. In the last two decades, several students of the department have contributed to the national and local community in the areas of higher education, administration, judiciary, politics and social service. At present, the emphasis of research studies is in the areas of Administration, Development Studies, International and National Political System and Political Institutions and Processes.

The present study investigates the use pattern of literature as revealed through the citation analysis of the doctoral theses in Political Science submitted to the Department of Political Science, Chaudhary Charan Singh University Meerut, Uttar Pradesh, India from 2010-2015.

### SCOPE OF THE STUDY

A citation analysis of Ph.D. theses in Political Science submitted to the Department of Political Science, Chaudhary Charan Singh University Meerut, Uttar Pradesh, India was performed as a way of determining the use of information sources made by the scholars from Political Science Department. For the present study 22 Ph.D. theses of Political Science were chosen as a sample from the year 2010-2015.

### LITERATURE REVIEW

Various studies have been carried out to investigate the use pattern of literature as revealed through citation analysis.

Miwa and Ueda [1] analyzed citations from Social Science Citation Index during 1977 and 1972 in economics, education, law, politics, psychology and sociology. Data analyzed includes number of references per article, forms of references,

obsolescence, title and subject dispersion. They found that the number of references to periodicals increased and references to books decreased.

Persson [2] has analyzed the publication of articles by Scandinavian authors using Social Science Citation Index. An on-line research in SSCI revealed stagnation of article production from the Scandinavian countries during the late 1970s. Economics is the discipline that produces the largest number of articles in non-Scandinavian journals. Sociology is much more oriented to Scandinavian journals, even when they are in English, are mainly cited by other Nordic periodicals.

Ziegler [3] presents methods and software implementation for analyzing a field of research through the use of bibliometrics, i.e., information about published journal articles. Online search engines are queried, and their search results are extracted and analyzed, to help inform a researcher of the state of his or her field. The methodology consists of three components: extraction of terms relevant to the research field, analysis of the growth in prevalence of these terms over time, and identification of interrelationships among these terms using a technique known as Latent Semantic Analysis.

Olatokun and Makinde [4] during the period 2000-2007 analysed theses submitted to the Department of Animal Science, University of Ibadan, Nigeria for finding possible relationships between citing, cited articles and authors. Frequency and percentage distributions and measures of central tendency were used to analyse data. The findings of the study showed that journals were the most utilized reference materials in the theses.

Chang [5] used bibliometric analysis and content analysis to explore characteristics and trends of scientometric research authored by researchers in Taiwan based on journal articles and theses. The findings indicated that after the first article on scientometrics was published in 1987, an increasing trend was observed in the number of scientometric-related publications after 2000, indicating that scientometric research received more attention in recent years. From the perspective of the authors' disciplines, the largest percentages of the authors were from the fields of library and information science (LIS).

Afful and Janks [6] used citation as a measure to rank academics and institutions on the assumption that the more one is cited, the greater the impact of one's research. The study examines the reference lists of ten doctoral theses, from three disciplines; Animal, Plant and Environmental Sciences, Literature, and Sociology in a leading South African university. The analysis of the reference lists shows that they are a highly politicized discursive site marked by particular values, alliances, allegiances, and dominant forms that are privileged.

Sife and Bernard [7] conducted a study to examine the persistence and decay of web citations in theses available at the Sokoine National Agricultural Library. Specifically, the study assessed the accessibility status of cited URLs, identified error messages and top level domains of inaccessible URLs, and calculated the half-life of web citations. Eighty-three theses dated between 2007 and 2011 were stratified according to their years of publication and randomly selected for the study. These gave a total of 15,468 citations of which 1,487 (9.6%) were web citations. The findings show that a total of 862 (58%) web citations were inaccessible.

## OBJECTIVES

The main objectives of the present study are:

- To identify the most cited sources of information consulted by the researches in Political Science.
- To identify the authorship pattern and degree of collaboration in Political Science research.
- To identify average number of references cited per thesis.
- To determine the year-wise distribution of theses submitted in the Department of Political Science.
- To determine the most frequently cited journals in Political Science.

## METHODOLOGY

Keeping in view the objectives of the present study, a citation analysis of Ph.D. theses in Political Science submitted to the Department of Political Science, Chaudhary

Charan Singh University Meerut, Uttar Pradesh, India was performed as a way of determining the use of information sources made by the scholars of the university. For the present study, 22 Ph.D. theses of Political Science were chosen as a sample from the year 2010-2015, there are in all 2,192 citations appended to these theses. The data was collected from bibliographical entries listed at the end of the theses and citation analysis was carried out to find the type of cited documents, the chronological distribution of cited documents, the authorship pattern of cited documents, etc. The study presents analysis of several parameters like authorship pattern, forms of literature and core journals.

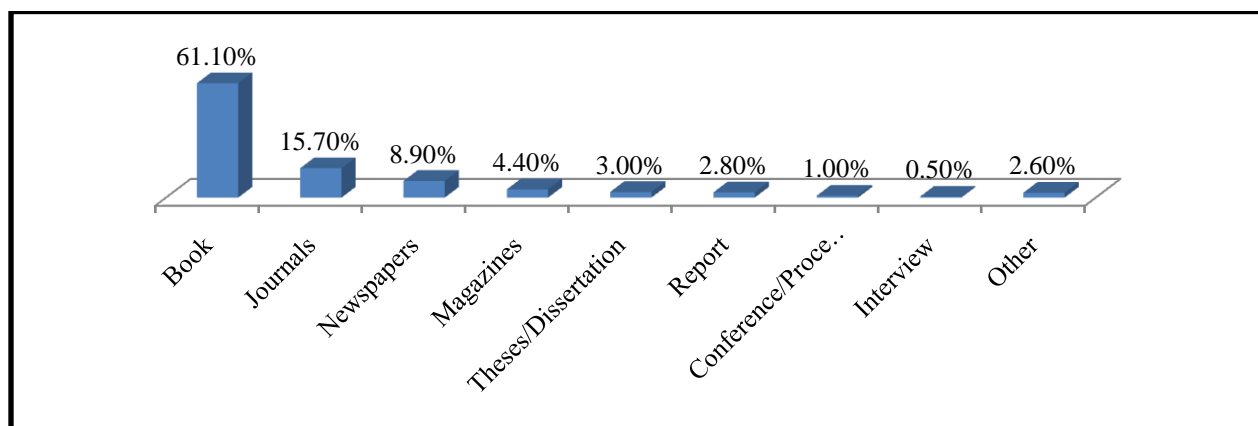
## DATA ANALYSIS

### Forms of Literature used by Research Scholars

Table 1 shows the format of publications cited in all the theses submitted. Of the 2192 citations in the 22 theses, books received the highest number of citations with a total of 1340 (61.1%) citations, while journals had 344 (15.7%) citations. Newspapers 196 (8.9%), magazines 97 (4.4%), theses/dissertations 66 (3.0%), report 61 (2.8%) and conference/proceedings 22 (1.0%) and other 56 (2.6%) (see table 1).

**Table 1: Forms of Document used by Research Scholars**

S. No.	Forms of Document	No. of Citations	%
1.	Book	1340	61.1
2.	Journals	344	15.7
3.	Newspapers	196	8.9
4.	Magazines	97	4.4
5.	Theses/Dissertation	66	3.0
6.	Report	61	2.8
7.	Conference/Proceedings	22	1.0
8.	Interview	10	0.5
9.	Other	56	2.6
	<b>Total</b>	<b>2192</b>	<b>100</b>



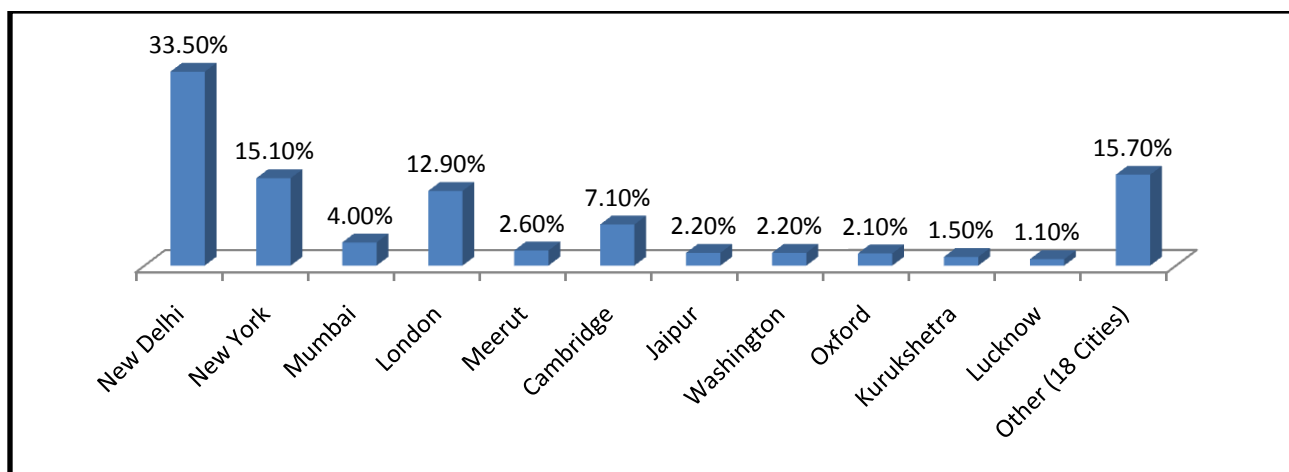
**Fig.1: Forms of Document used by Research Scholars**

### City-wise Scattering of Citations

Table 2 shows the top cities of the world in terms of contribution of citations. It indicates that New Delhi ranked first having 735 (33.5%) citations, followed by New York 330 (15.1%), London 283 (12.9%), Cambridge 154 (7.1%), Meerut 57 (2.6%), Jaipur 49 (2.2 %), Washington 48 (2.2%), Oxford 45 (2.1%), Kurukshetra 32 (1.5%), Lucknow with 25 (1.1%) (see table 2).

**Table 2: City-wise Scattering of Citations**

S. No.	City	No. of Publications	%
1.	New Delhi	735	33.5
2.	New York	330	15.1
3.	Mumbai	88	4.0
4.	London	283	12.9
5.	Meerut	57	2.6
6.	Cambridge	154	7.1
7.	Jaipur	49	2.2
8.	Washington	48	2.2
9.	Oxford	45	2.1
10.	Kurukshetra	32	1.5
11.	Lucknow	25	1.1
12.	Other (18 Cities)	346	15.7
	<b>Total</b>	<b>2192</b>	<b>100</b>



**Fig.2: City-wise Scattering of Citations**

### Country-wise Distribution of Citations

Analysis of data in table 3 indicates that 2192 citations were scattered in publications that were published from more than 30 countries. India ranked first with 1126 (51.4%) citations followed by U.S.A. 325 (14.8%), U.K. with 172 (7.8%), Japan 43 (1.9%), Germany 37 (1.7%), France 22 (1.0%), Switzerland 10 (0.5%) and Italy 20 (0.9%) (see table 3).

**Table 3: Country-wise Distribution of Citations**

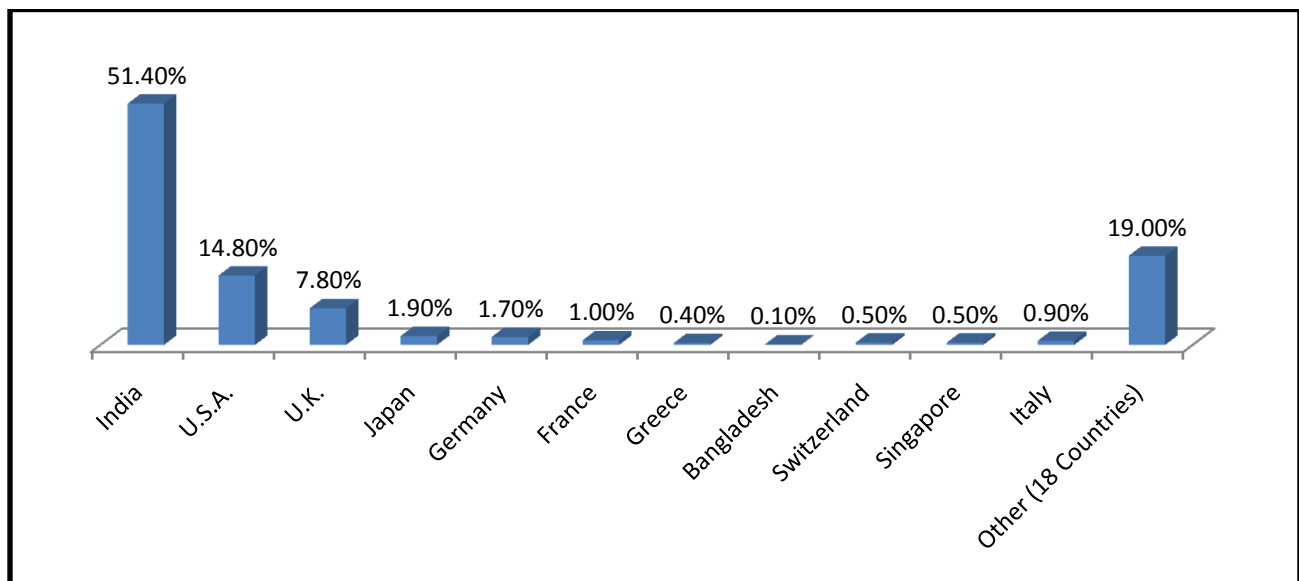
S. No.	Country	No. of Publications	%
1.	India	1126	51.4
2.	U.S.A.	325	14.8
3.	U.K.	172	7.8
4.	Japan	43	1.9
5.	Germany	37	1.7
6.	France	22	1.0
7.	Greece	8	0.4
8.	Bangladesh	2	0.1
9.	Switzerland	10	0.5
10.	Singapore	10	0.5
11.	Italy	20	0.9
12.	Other (18 Countries)	417	19.0
	<b>Total</b>	<b>2192</b>	<b>100</b>

### Authorship Pattern

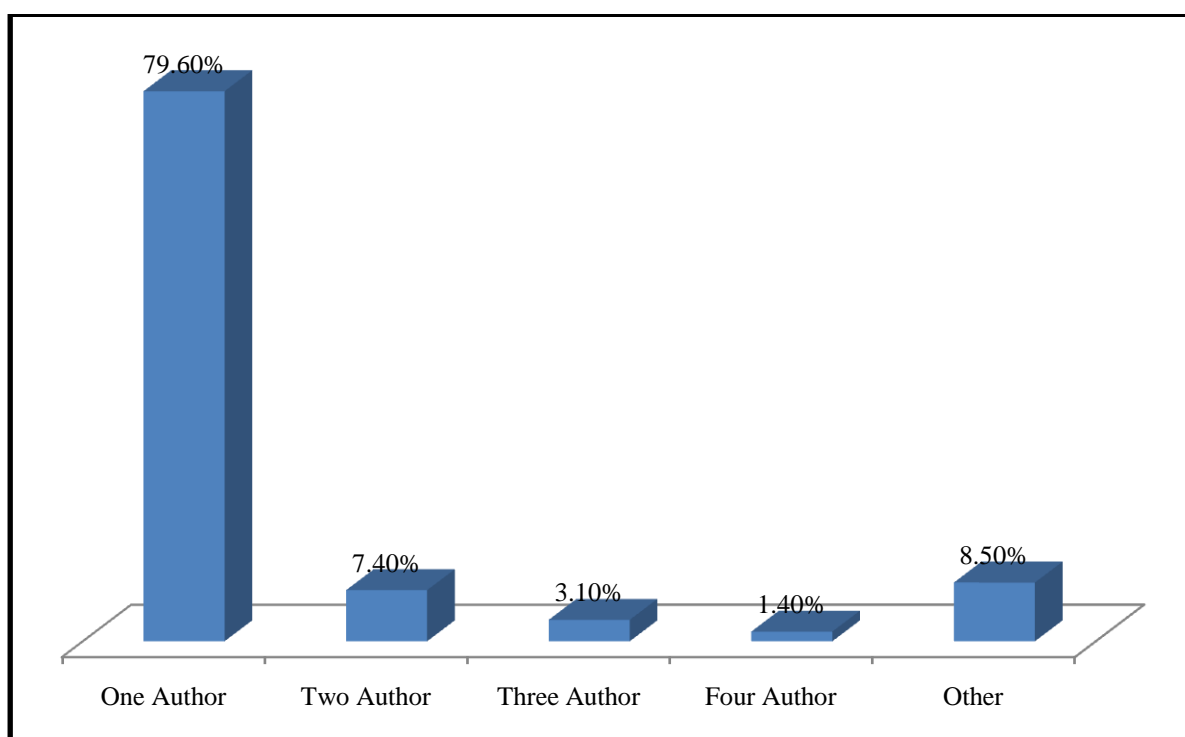
Authorship pattern is analysed to determine the percentage of cited items that are of single authorship, two, three and four or more authors. Some of the documents such as newspapers interviews are not included in table 4. The study finds that 1744 (79.6%) has single authorship (see table 4).

**Table 4: Authorship Pattern**

S. No.	Author	No. of Citations	%
1.	One Author	1744	79.6
2.	Two Author	164	7.4
3.	Three Author	67	3.1
4.	Four Author	31	1.4
5.	Other	186	8.5
	<b>Total</b>	<b>2192</b>	<b>100</b>



**Fig. 3: Country-wise Distribution of Citations**



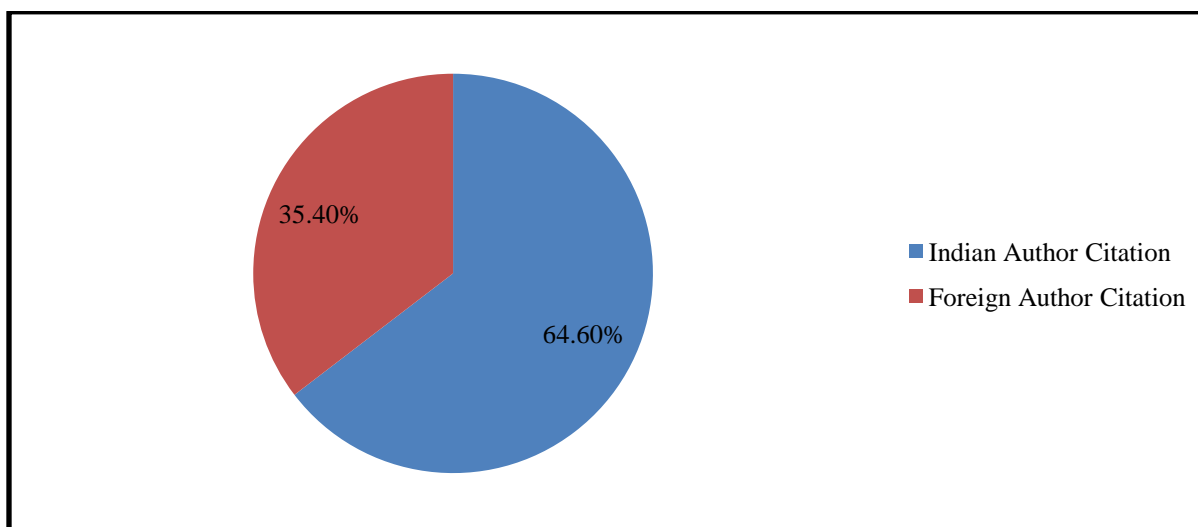
**Fig. 4: Authorship Pattern**

### Indian vs. Foreign Authors

To examine the proportion of citations to Indian author publications vis-à-vis to foreign author publications, the authors were classified into Indian authors and foreign authors' citations based on the name of the author. The study finds that 1315 (64.8%) citations are from Indian authors, while 713 (35.2%) citations are from foreign authors (see table 5).

**Table 5: Author Citation of Foreign-Author Citation Ratio**

S. No.	Type of Author Citations	No. of Citations	%
1.	Indian Author Citation	1416	64.6
2.	Foreign Author Citation	776	35.4
	<b>Total</b>	<b>2192</b>	<b>100</b>



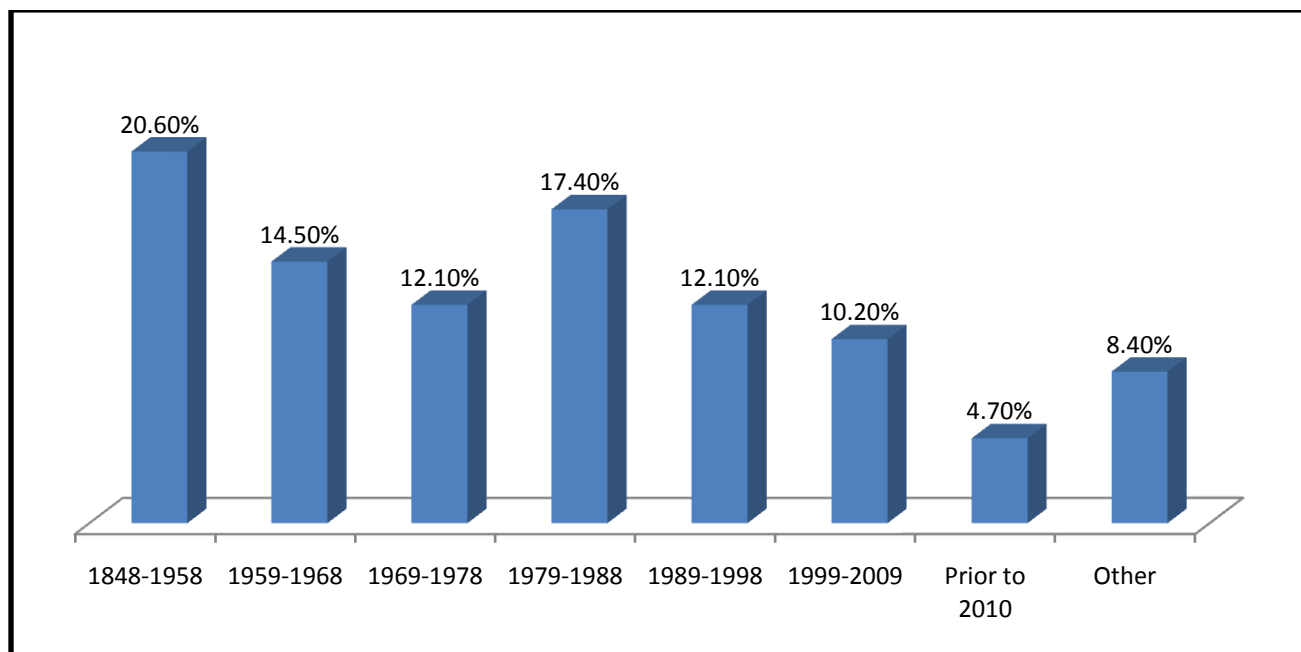
**Fig. 5: Indian vs. Foreign Authors**

### Year-wise Distribution of Citations

Table 6 shows the distribution of citations by year. It can be seen that the maximum number of citations (20.6%) were from the publications published during the period of 1948-1958, followed by the year 1959-1968 with 318 (14.5%) citations, 1969-1978 with 265 (12.1%), 1979-1988 with 382 (17.4%), 1989-1998 with 264 (12.1%) and 1999-2009 with 224 (10.2%) (see table 6).

**Table 6: Year-wise Distribution of Literature**

S. No.	Time Span	No. of Citations	%
1.	1848-1958	452	20.6
2.	1959-1968	318	14.5
3.	1969-1978	265	12.1
4.	1979-1988	382	17.4
5.	1989-1998	264	12.1
6.	1999-2009	224	10.2
7.	Prior to 2010	102	4.7
8.	Other	185	8.4
	<b>Total</b>	<b>2192</b>	<b>100</b>



**Fig. 6: Year-wise Distribution of Citations**

### Core Journals

The ranked list of core journals as reflected in the citations is presented in table 7. It is observed that researchers in political science have cited a total of 344 journal articles. The study finds that Economic and Political Weekly with 48 (13.9%) and American Political Science Review with 45 (13.1%) are the top two journals. However, Journal of Constitutional and Parliamentary Studies Review with 42 (12.2%), Journal of Indian Institute of Public Administration with

26 (7.6%), India Quarterly India with 8 (2.3%), Indian Journal of Criminology and Criminalist with 8 (2.3%), Indian Policy Journal 17 (4.9%) and the Indian Journal of Political Science Review with 11 (3.2%) (see table 7).



**Table 7: Core Journals in Political Science**

S. No.	Name of the Journal	Country	No. of Publications	%
1.	Economic and Political Weekly	Bombay	48	13.9
2.	Journal of Constitutional and Parliamentary Studies Review	India	42	12.2
3.	Journal of Indian Institute of Public Administration	India	26	7.6
4.	American Political Science Review	U.S.A.	45	13.1
5.	Journal of Political Science	New Delhi	13	3.8
6.	India Quarterly India	India	8	2.3
7.	Indian Journal of Criminology and Criminalist	Madras	8	2.3
8.	Indian Policy Journal	New Delhi	17	4.9
9.	Indian Political Parties	India	4	1.2
10.	The Indian Journal of Political Science	New Delhi	11	3.2
11.	Other Journals		122	35.5
	<b>Total</b>		<b>344</b>	<b>100</b>

### FINDINGS

In the present study 2192 citations were analyzed from 22 Ph.D. theses in political science. On the basis of the above study the following conclusions are drawn:

- Highest numbers of citations (61.1%) were to books, followed by journal articles, newspapers, conference/proceedings, reports etc.
- County-wise distribution of citations reveals that Indian literature received (51.6%) citations and ranked first followed by U.S.A. with 325 (14.8%) and U.K. with 172 (7.8%).
- Similarly, New Delhi ranked first having (33.5%) citations, followed by New York (15.1%) citations and London with 6.9% citations.
- The analysis of authorship pattern in political science theses reveals that 79.6% citations were papers written by single authors, which implies that political science is less collaborative as compared to sciences and technology.
- The analysis of citations indicates that most cited authors in the theses are Indian authors

(64.8%) and citations to foreign authors are about (35.2%).

- In the ranked list of journals, *Economic and Political Weekly* occupies the first rank accounting for 48 (13.9%) of total journal citations followed by *American Political Science Review* with 45 (13.1%) citations.

### CONCLUSION

Citation analysis is one of the popular methods employed in recent days for the identification of core documents in various subject fields or for a particular specific community in a geographical proximity.

During the study it was found that citations are not given in standard format. Researchers did not use any uniform pattern/sequence while citing the research materials. It is observed that somewhere year is missing, somewhere publisher's name and place. This kind of study will definitely help the libraries in selection of useful sources as there is explosion of information and documents in the form of books and journals. The ranking of journals can be used by librarians and researchers to select the journals of greater importance in a particular subject area.



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