

A Citation Analysis of the Doctoral Dissertations Submitted to the Department Of English, Gauhati University, India during 2009-2012

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ABSTRACT: Citation analysis is a major thrust area of bibliometric research today. It is the most important and effective means of getting useful information about the literature in each and every field. The present study is based on 908 citations appended to six theses submitted to the Department of English, Gauhati University for the award of doctoral degree during the period 2009-2012. Several bibliographic parameters including number of citations received, different bibliographic forms, authorship pattern, collaborative coefficient, obsolescence age etc have been used to carry out the analysis of the received data. The study shows that books are the most preferred sources of information used by the researchers in the field of English Literature, which contributes 77% of the total citation while the second popular source of information is periodicals i.e.15%. Journal citation is very less in comparison to book citation. The researchers show much tendency towards citing the older literature like a decade or so in their works. The authorship pattern reveals that one-authored publications contributed 85.1 % of the total citation. The collaborative coefficient calculated is .10.

Keywords: Citation Analysis; Department of English; Gauhati University; Citations.

1. INTRODUCTION

Government organizations, private institutions as well as public research institutions all are carrying out research over the world. In the Universities, the researchers have to compile doctoral dissertations for the attainment of Ph.D degree. In a doctoral dissertation the researcher includes valuable references and citations by which another researcher can identify the best source of information in the field he is doing research. Thus, from citations a new researcher gets immense help to know about the most relevant materials for his research. So, the citation is the valuable medium for communication among the researchers and helps the librarians and information scientists to identify the important information sources.

Citation studies have contributed greatly to know the obsolescence rate of literature. The determination of obsolescence of literature has great implications on library administration. Generally it is seen that the older literatures in a field are used to a smaller extent than the recent ones.

Researches in English Literature are carried out in Gauhati University by the research scholars for the award of Ph.D degree. Studies on citation analysis of the Ph.D theses will help to find out the bibliographic sources mostly used by the scholars. This is a sample study in English

Literature and Same kind of studies in other subjects will definitely help the library authority in developing a proper collection thereby maximizing the use of resources by the users.

1.1 Gauhati University, Assam

Gauhati University is the first public university of North-East India, located in Guwahati, Assam, India. It was established on 26th January, 1948 by an act of the State Legislature: the Gauhati University Act 1947 (Assam Act, xvi of 1947) of the Government of Assam. Over the years and across the decades since the existence, Gauhati University has offered opportunities of Higher Study to students from the ethnically and culturally diverse mosaic of communities of the North-East. The university has been awarded a four star status of the National Assessment and Accreditation Council (NAAC).

The central library of Gauhati University is Krishna Kanta Handique Library (KKHL). The library was established to cater to the needs of the students, teachers and research scholars of the university. The library has a sufficient collection of books and other academic materials to fulfill the needs of the students, research scholars and faculties of the University.

2. LITERATURE REVIEW

Several studies dealing with bibliometrics have been conducted and reported in literature. In this study a few books were also consulted to thoroughly understand the concept of bibliometrics and citation analysis.

Barua (2001) made an citation analysis of doctoral dissertations in the field of Biological Sciences, Gauhati University during 1995-1999. The result showed that researchers preferred journals in their research works more than other sources. According to Egghe & Rousseau (1990), the existence of a cited document in a reference list indicates the facts that there is a relationship between the cited and citing documents from the author's point of view. They identify the area that deals with the study of these relationships as citation analysis.

Diodato (1994) describes citation analysis as a major method of bibliometrics that considers the citations. Citation studies may focus on the documents and or their authors, the journals and countries as the producer of those documents. Tiwari (2006) gives detailed description on bibliometrics and citation analysis as a technique of bibliometrics. Chikate and Patil (2008) made a study on the citation analysis of theses in Library & Information Science submitted to University of Pune during 1982-2005. The study showed that nearly half of the citations recorded were from journal articles, *i.e.* 42.2%. Raju (2009) discusses in detail about the applications and limitations of citation analysis. He claims that citations are the references, included by the author in and then from which the authors draw information, which can cause the determination of the quality, usefulness or impact of journals.

Thanuskodi (2011) has done a thorough study by presenting a bibliometric analysis of the journal titled "Library Herald" for the period between 2006-2010. Gohain & Saikia (2014) analysed the citations of Ph.D theses submitted to the Department of Chemical Sciences, Tezpur University, Assam during the period 2008-2012 with the main Purpose of compiling a rank list of core journals in Chemical Sciences. The study revealed that the journals were the most preferred sources of information used by the researches in the field of Chemical Sciences accounting for

70.13% of the total citations followed by books with 15.57% citations.

3. OBJECTIVES OF THE STUDY

The following objectives have been lined up for this study:

- (a) To study the distribution of the cited references in the theses in English categoriwise viz., books, periodicals, web citations, and others.
- (b) To study how old citations do the researchers use and what is the obsolescence age of cited literature.
- (c) To study the authorship pattern and degree of collaboration of the cited references.

4. METHODOLOGY AND LIMITATIONS

In the present study both the survey and statistical methods have been used. There are 97 numbers of Ph.D theses in English available in KKHL. 11 of them were submitted during 2009-2012. Out of 11, six latest theses have been selected for study. One from 2009 and 2012, two each from 2010 and 2011. No thesis is available from the year 2013 so the time period has been limited to 2012.

As the statistical method consists of five steps *i.e.* collection, organization, presentation, analysis and interpretation of data, in the study all these steps have been included.

The study is confined to the research activities carried out in Gauhati University in the field of English Literature. Each year the research scholars of all the departments submit the doctoral dissertations most of which are kept in the KKHL. The present study is confined to the citation analysis of latest six theses during 2009-2012.

5. DATA ANALYSIS

Six numbers of Ph.D theses available in KKHL distributed to various topics submitted to the Department of English, Gauhati University has been taken for this study. Citations available in these six theses are the source of this study. Table 5.1 giving the details of the six dissertations taken for study along with the number of citation appended.

Table 5.1 : Ph.D Theses Taken for Study During 2009-2012

SINo	Title	Scholar	Year	No. of Citation
1	Women in Arnold Wesker's Plays with Special Reference to His Six One-Woman Plays	Rajesh Tiwari	2009	142
	Politics of Translation: Gender, Culture and Identity in Translating Post 80's Assamese Women's Fiction	Ipsita Bhattacharyya	2010	127
3	Language-Literature Divide in English Teaching in India: A Study of the Undergraduate General English Syllabus of Assam University	Rajat Bhattacharya	2010	118

Table 5.1 : Ph.D Theses Taken for Study During 2009-2012

SlNo	Title	Scholar	Year	No. of Citation
4	Nationalism and the Woman's Text: A Study of Women's Writing in Pre-Independence Assam	Krishna Das	2011	241
5	Narratives of Marriage in the Novels of Anita Desai and Shashi Deshpande	Jayati Das	2011	228
6	A Critical Study of the Cross-Linguistic Influences on Learning English in the Regional Medium Schools in Assam	Gargi Saikia	2012	52

The citations collected were tabulated to find out different bibliographic forms of the cited sources, number of citations, authorship pattern, age of citation, etc apropos to the objectives lined up for the study.

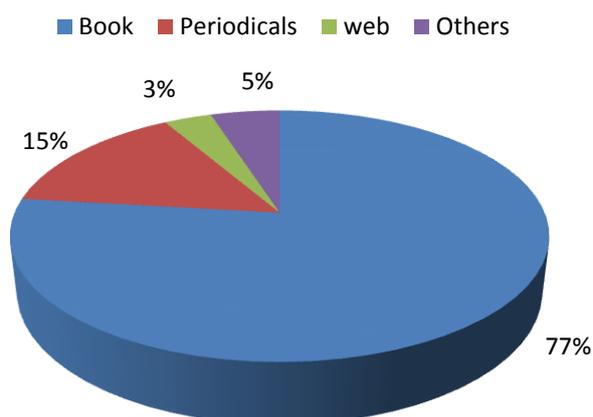
Analysis, discussion and interpretation on data have been presented in the following headings and subheadings. Graphs and charts are also presented wherever deemed fit to present the data at the required precision.

5.1 Bibliographic Form of the Cited Documents

One of the objectives of this study is to find out the different bibliographical forms of the cited literature distributed in the doctoral dissertations. Table 5.2 shows how total 908 citations are distributed among different forms of publications. The percent shares of the citations according to different forms are presented in figure 5.1.

Table 5.2: Bibliographic form of the Cited Document

Sl No	Forms	Citations	Percentage	Cumulative Citation	Cumulative Percent
1	Book	698	77	698	76.9
2	Periodicals	134	15	832	91.6
3	Web	31	3	863	95.0
4	Others	45	5	908	100.00
	Total	908	100		

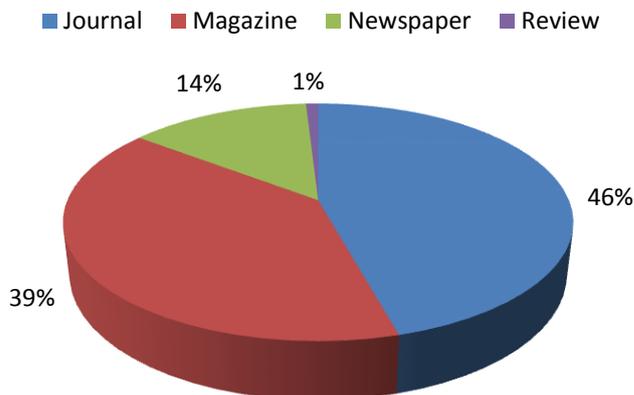
Fig5.1: Bibliographic form of the Cited Document

The figure shows that 77% of the total citation is contributed by the books. Out of the various types of bibliographic forms, books are recorded as most cited in English Literature. Periodicals found to be contributing 15% of the citations in this study have been further analysed to categorize into Journal, magazine, newspaper and review articles. Table 5.3 giving the total citations recorded from these types under periodicals and graphically presented in figure 5.2.

Table 5.3: Periodical Citation

Content Type	Citation
Journal	60
Magazine	52
Newspaper	18
Review	4
Total=	134

Fig 5.2 Periodical Citation



Out of the four content types, contributing total 134 citations, scholarly Journals found to be highest 60(*i.e.*46%) citations followed by Magazine with 52(*i.e.*39%),Newspaper and Review citation share is 14% and 1%,respectively.

5.2 Journal Citation

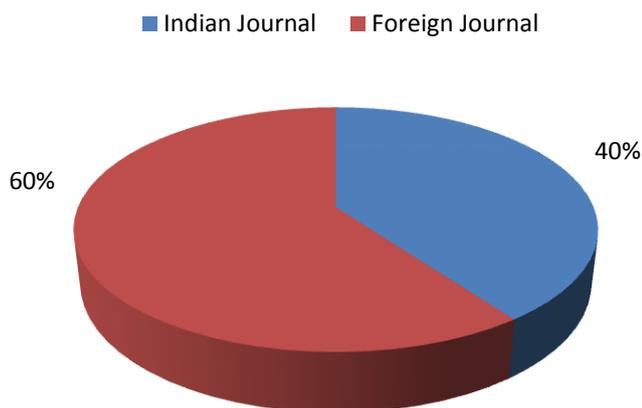
Journals are essential for research but their quality, usefulness and suitability to a particular group of users differ. The ranking list helps to select journals of maximum utility in a particular field of research. In table 5.4 the ranked list of journals that appeared in the citations is presented. Journals cited at least two times have been placed in the table. Titles are arranged in their decreasing order of the number of citations.

Table 5.4: Ranked List of Cited Journals

SINo	Name of Journals	Rank	Citations	Countryof Publication
1	Language in India	1	8	India
2	Asian EFL Journal	2	5	United Kingdom
3	University News	3	4	India
4	TESOL Quarterly	4	3	United States
5	World Literature Written in English	4	3	United Kingdom
6	Feminist Review	5	2	United Kingdom
7	Indian Literature	5	2	India
8	JEFL: Journal of English and Foreign Languages	5	2	India
9	ELT Journal	5	2	United Kingdom
10	Theatre Quarterly	5	2	United Kingdom
37	27 Journals have one citations	6	27	
	Total		60	

Table 5.4 shows that only ten journals are cited more than once out of 37 journals.The most cited journal is *Language in India*, which is an Indian journal. Highest five numbers of journals are published from United Kingdom and four from India. Remaining one is found to be published from USA. Figure 5.3 presents the distribution of Foreign and Indian journals.

Fig 5.3: Foreign Journal vs. Indian Journal



5.3. Authorship Patterns

Authorship has been analysed to determine the percentage of single and multiple authors. Table 5.5 shows the authorship pattern distribution of total 908 citations.

No. of Authors	No. of Citation	percentage	Cumulative Citation	Cumulative Percent
One Author	773	85.1	773	85.1
Two Authors	90	10.0	863	95.1
Three Authors	4	0.4	867	95.5
Four Authors	1	0.1	868	95.6
Not Mentioned	40	4.4	908	100
Total	908	100		

The table shows that single-authored documents have the highest number of citations. It covers 85.1% of the whole citations. The second highest number of citation is contributed by double-authored documents. However authorship pattern could not be ascertained in as many as 40 citations where bibliographic information is incomplete. The least number of citations are contributed by three and four-authored documents. From the table it is found that the percentage of single and multiple authored citations are 85.1% and 10.5% respectively.

5.4 Calculation of Collaborative Coefficient

The collaborative coefficient is calculated based on the formula proposed by Subramanyam (1983) as follows:

$$C = \frac{Nm}{Nm + Ns}$$

$$= \frac{95}{95 + 773}$$

$$= \frac{95}{868}$$

$$= .10$$

C= Collaborative coefficient

Nm=Number of multiple authored citation

Ns=Number of single authored citation

Accordingly, the collaborative coefficient in English Literature is found to be .10

5.5. Age of Citation

The age of references cited in the Ph.D dissertations also gives a glimpse on the information use pattern as well as information relevancy parameters of researchers. Table 5.6 gives the total age citation of the documents.

Table 5.6: Total Age Citation

Age Interval	No of Citation	Percentage	Cumulative Citation
0-10	274	30.2	274
11-20	282	31.1	556
21-30	148	16.3	704
31-40	82	9.0	786
41-50	53	5.8	839
51-60	12	1.3	851
61-70	3	0.3	854
71-80	8	0.9	862
81-90	22	2.4	884
91-100	3	0.3	887
101-110	5	0.6	892
111-120	1	0.1	893
121-130	7	0.8	900
131-140	1	0.1	901
141-150	0	0	901
151-160	5	0.6	906
161-170	2	0.2	908
Total	908	100	

Thus from the above year wise distribution of age citation(table 5.6) it is found that the age group 11-20 got the maximum number of citation which is 282 out of 908 i.e.31.1% of the total citation. The age group 0-10 is in the second position with 30.2 % of the total citation followed by the age group 21-30 having the 16.3% of total citation. Except the age group 141-150 all other age groups got at least 1 citation.

5.6 Calculation of Obsolescence of Citation

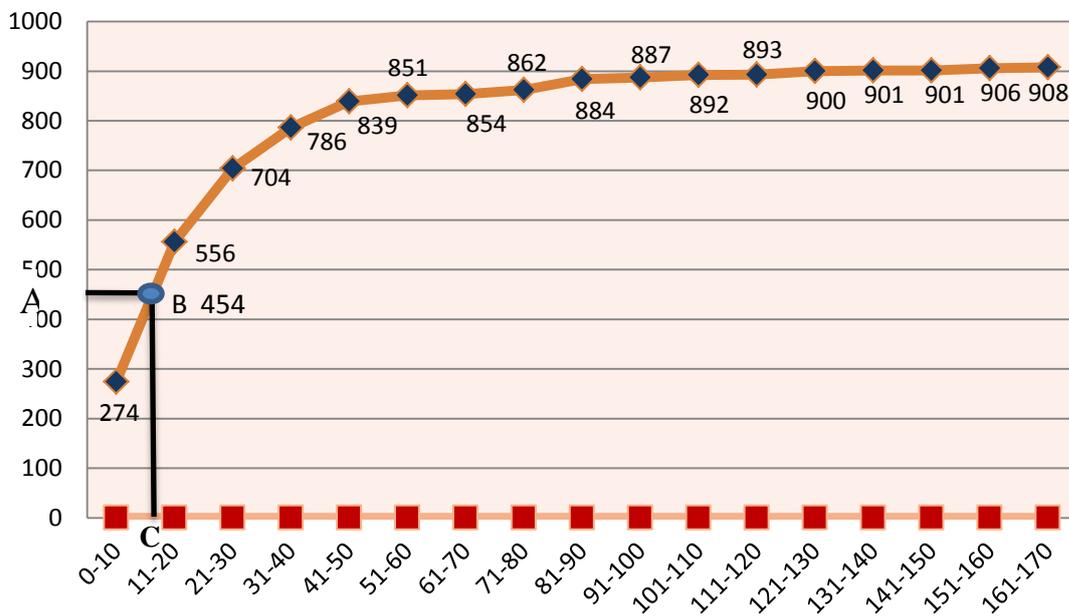


Fig5.4: Obsolescence of Citation

The obsolescence of citation is calculated from the age of citation. For this, the cumulative of the total citation is plotted on Y-axis and the age interval is plotted on the X-axis. Then the half of the total citation is taken as the focal point. Based on this, a line is drawn from the point A of Y-axis parallel to X-axis on the cumulative line touching the point B. Again, from the point B a line is drawn parallel to the Y-axis on X-axis touching the point

C. The value at the intersecting point C was counted to be the obsolescence age value of the given subject. Here, the obsolescence age in English Literature found is 17. It seems to be unjustified to conclude that literature in English gets outdated in 17 years since 7.5% citations are found to be as old as more than 50 years.

6. FINDINGS

The findings of the study are presented against the objectives set as follows:

Objective 1: To study the distribution of the cited references in the theses in English categoriwise viz., books, periodicals, web citations, and others.

Finding: Out of the 908 total citations book citation is found to be the highest. It covers 77% of the total citations. Periodical citation found is 134 which is almost 15%. Web and other sources contribute 3% and 5% of total citations, respectively (Table 5.2). Among the different forms of periodical, journals are cited the most (i.e. 46%), contributed by 37 journals (Fig 5.2 & table 5.3). On searching the country of publication of the journals, having more than one citations, it is found that 40% of them are Indian and 60% are Foreign (Table 5.4 & fig: 5.3).

Objective 2: To study how old citations do the researchers use and what is the obsolescence age of cited literature.

Finding: In the present study from the age citation it is found that the researchers used the documents of the ages of mostly 0-20 years which is 61.2% of the total citation. 7.5% of citations are more than 50 years older (Table: 5.6). In our analysis obsolescence age found is 17 (Fig: 5.4). Thus from the obsolescence value one can determine the obsolescence of material. It indicates that much older documents are to be obsolete.

Objective 3: To study the authorship pattern and degree of collaboration.

Finding: One-authored publications contributed the highest number of citations; 773 out of 908 citations which covers 85.1 % of the total citation.

REFERENCE

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The numbers of three and four authored citations are 0.4% and 0.1% respectively (Table 5.5). From the authorship pattern the collaborative coefficient is calculated which is .10.

7. CONCLUSION

Citation analysis is one of the popular methods employed in recent years to identify the core references in a subject. It is a technique to study subject relationships, authorship pattern, impact, publication trends and to identify core journals in a particular subject field. It is evident from the citations that Ph.D research scholars of Department of English, Gauhati University consulted enormous literature while preparing their theses. The study shows that books are the most preferred sources of information used by the researchers in the field of English, which contributes 77% of the total citation while the second popular source of information is periodicals i.e. 15%. The ranked list of books and periodicals are very useful in the acquisition of new documents for the library. It helps librarians and researchers to select the books and periodicals of greater importance in a particular subject area. This kind of citation studies will also be helpful to recognize researcher's information needs and requirements and can serve as feedback to the librarians in the selection and acquisition of most useful materials for the library.

The study is a very partial study since only six doctoral dissertations have been chosen for citation analysis. Further studies involving more parameters and doctoral dissertations will surely reveal important facts that will definitely help in strengthening the library and make the scholars in English satisfied with its collection.